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INTERAGENCY PROGRAM REVIEWS

Federal Water Quality Administration
Portland, Oregon

1970

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INTERAGENCY PROGRAM REVIEWS

Federal Water Quality Administration
Northwest Region
Portland, Oregon
Fiscal Year 1970

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Springfield VA 22151

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UNITED STATES
DEPARTMENT OF THE INTERIOR
FEDERAL WATER POLLUTION CONTROL ADMINISTRATION
NORTHWEST REGION

April 30, 1970

MEMORANDUM

TO: The Files

FROM: Director, State and Federal Assistance Programs

SUBJECT: Interagency Reviews

An objective of our 1970 work plans for the Federal Activities Coordination Branch was to conduct program reviews with agency heads for the purpose of establishing procedures for coordination and implementation of a program for controlling the pollution from Federal installations and activities.

Prevention and control of pollution from such agency installations and activities have received the attention and guidance of the presidents with each amendment of the Federal water pollution control act since 1948. Each president has issued an Executive Order on this subject beginning with President Truman. Each succeeding Executive Order gave more emphasis to the urgency of the Federal water quality programs and to the need for cooperation and coordination of activities and responsibilities between the agencies. This resulted in the establishment of "Federal Priorities" and in several formal agreements between agencies; such as between FWQA, FS, CE, HEW, and others.

Top level discussions were held between FWQA and agency heads in FY 1970 to discuss and clarify the coordination and application of:

1. Water quality standards
2. Design of new Federal installations and improvements of existing facilities
3. Existing agreements and possible need for additional agreements
4. Inventory of existing installations and the status report to the Bureau of the Budget

5. Need for field and technical assistance and advice from FWQA and assignment of priorities
6. Program planning and budgeting for field work and consultations
7. Appointment of "coordinators" by agency to assist contacts for field and operational activities

In line with the above objective, 13 interagency program reviews were held during the fiscal year.

Hurlon C. Ray

Hurlon C. Ray

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MINUTES OF INTERAGENCY MEETING

BUREAU OF LAND MANAGEMENT, SERVICE CENTER

and

FEDERAL WATER QUALITY ADMINISTRATION
NORTHWEST REGION

April 14, 1970

The meeting, called by mutual agreement of the two agencies, was held to discuss joint responsibilities and programs as they affect water pollution control problems. Principal subjects were the proposed activities to be carried out under the new Environmental Policy Act, 1970, and the Executive Orders 11507 and 11514.

Representatives attending are as follows:

BLM - Service Center

Edward G. Bygland	Director
Alan P. Thomson	Forestry Staff Leader
Lee Nadeau	Chief, Div. of Standards & Technology
Robert L. Borovicka	Fishery Biologist
Roy F. Renoud	Chief, Div. of Personnel & Safety
Tom D. Conklin	Chief, Div. of Engineering
Eugene K. Peterson	Chief, Div. of Basin Studies
Bob Arndorfer	Civil Engineer
Robert L. Bysom	Contracting Officer

BLM - Oregon State Office

H. L. Haglund	Chief, Br. of Forest Mgmt.
Thomas E. Haller	Representing Irving Anderson - Lands and Minerals
Richard Schlacter	Chief, Branch of Roads

FWQA, Northwest Region

Hurlon C. Ray	Director, State & Federal Assistance Programs
Lloyd A. Reed	Federal Activities Coordinator
Merritt A. Mitchell	Sanitary Engineer
Carl T. Nadler	Sanitary Engineer

Gene Peterson led off by outlining for the FWQA people the BLM-Portland Service Center organization, its overall mission, and relationship to the BLM Oregon-Washington State office. He then asked each of the other BLM attendees to discuss his branch program and its functions. These were according to the attached organization chart.

Hurlon C. Ray, Director, State and Federal Assistance Programs, FWQA, discussed the water pollution control program of the Northwest Regional office. The organization chart for this agency and respective branch functions is also attached. (To be supplied at a later date.)

Mr. Lloyd A. Reed discussed briefly the functions under the Federal Activities Coordination Branch of which he is Chief. He highlighted areas of concern with BLM facilities and point discharges under Executive Order 11507, and Loans, Grants, and Contracts, as well as permits, licenses, and internal policies which might have some relationship to pollution problems resulting from BLM activities.

Significant items among those covered in the general discussion and exchange of ideas which ensued are as follows:

1. The proposed interagency agreements between BLM, Corps of Engineers, and the Bureau of Reclamation was cited. While these agreements have been under review for some time, they are now expected to be signed shortly. This will facilities BLM River Basins impact studies and review of Bureau of Reclamation and Corps water resource projects.

2. The philosphy of BLM Land Classification and Multiple-Use management approach was discussed. It was noted that statutory authority for this rationale expires in December 1970. The results and recommendations of the National Land Law Review may have significant impact on the future program of BLM.

3. Mr. Renoud, BLM Personnel Officer, mentioned a study recently completed which showed need for and recommended establishment of an environmental expert on staff of the state offices, District Offices, and the Portland Service Center. FWQA commented on the training courses and facilities at Corvallis Lab and at Cincinnati which are available to help in orienting staff to environmental problems and in effecting solutions.

4. The need for reporting proposals for meeting requirements of Executive Order 11507 and the processing of Bureau of Budget forms A-81 were discussed. It was pointed out that BLM Headquarters in Washington, D.C., had not submitted reports of their water pollution control requirements in the past. The desirability of identifying pollution control or water quality protection items in budget was discussed in light of BLM practice of not requesting funds for sewage treatment, etc, as an identifiable item. FWQA suggested this may be a means of increasing

support for desirable projects. BLM inquired whether FWQA could support budget justification of this nature. FWQA can write comments in letter report documenting a given pollution problem and the need for abatement or prevention.

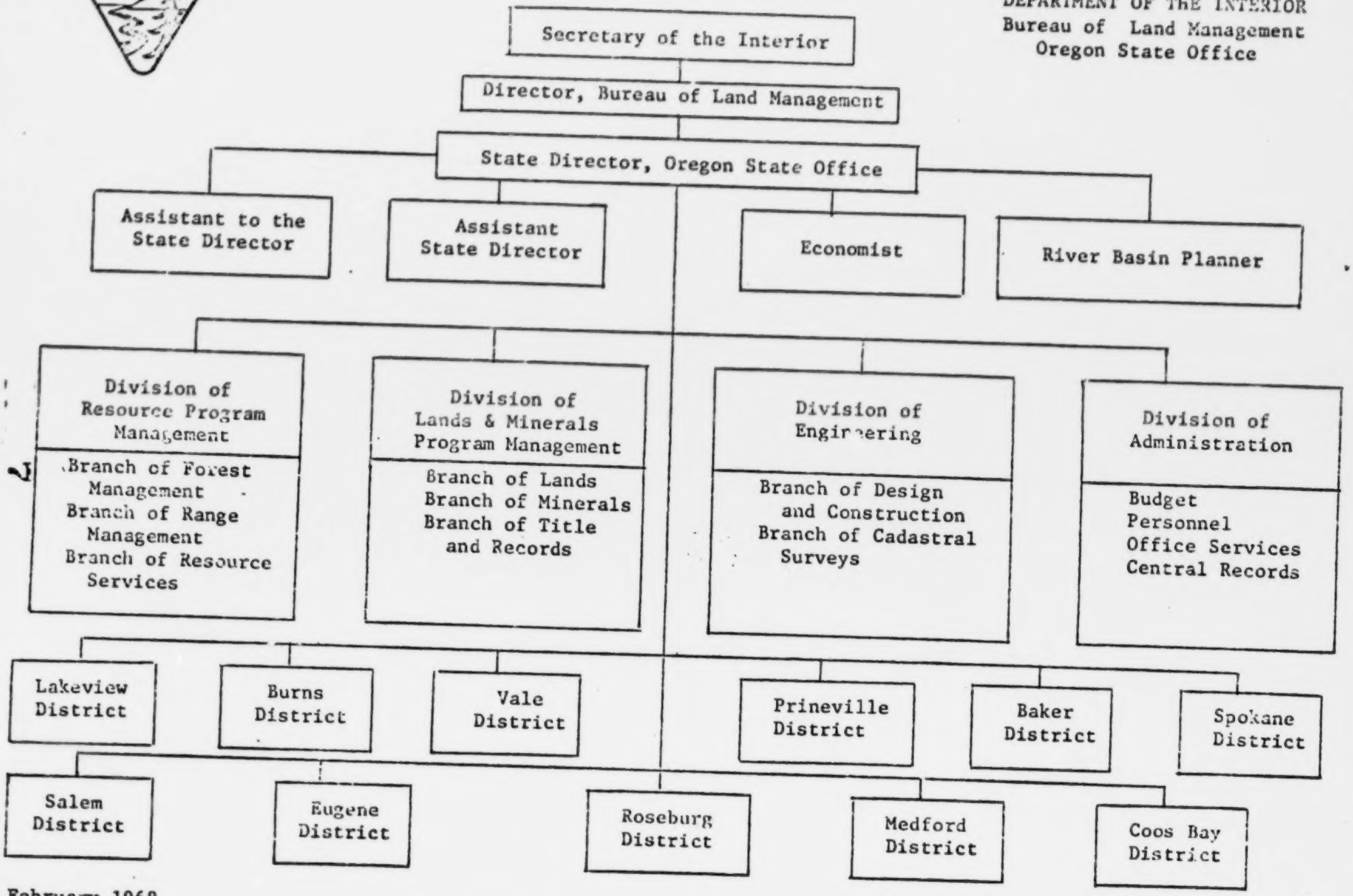
5. The problem of silt and turbidity in the Rogue River was discussed. BLM reported that placer mining and logging activities were responsible; predominantly the logging on privately owned lands. It was mentioned that Oregon DEQ standards program should be able to control the placer operation. However, means of exerting abatement proceedings against logging operations on private lands are extremely difficult. The need for state logging practice regulations was cited. Also mentioned was new state forestry legislation which is currently being prepared. The FWQA Logging Guide was discussed and methods of implementing its recommendations were discussed.

6. Review of contracts, permits, licenses, and other land management functions was discussed; particularly with respect to supplemental language in contracts on timber harvesting and road construction and maintenance. Also of interest are functions under use permits, mineral leases, exploration permits, grazing contracts, and others. Some techniques mentioned were mulching and seeding of cut and fill slopes, control fencing for overgrazed areas or watering holes which are creating water quality problems. Pesticide programs and land fertilization are serious problems already under consideration. It was agreed that the BLM would designate individuals in both the State Office and the Service Center to represent that agency in continuing discussions on review of these matters.

Attachments:

Organizational Chart - BLM, Oregon State Office

UNITED STATES
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Oregon State Office


Secretary of the Interior
Director, Bureau of Land Management
State Director, Oregon State Office
Assistant to the State Director
Assistant State Director
Economist
River Basin Planner
Division of Resource Program Management
Branch of Forest Management
Branch of Range Management
Branch of Resource Services
Division of Lands & Minerals Program Management
Branch of Lands
Branch of Minerals
Branch of Title and Records
Division of Engineering
Branch of Design and Construction
Branch of Cadastral Surveys
Division of Administration
Budget
Personnel
Office Services
Central Records
Lakeview District
Burns District
Vale District
Prineville District
Baker District
Spokane District
Salem District
Eugene District
Roseburg District
Medford District
Coos Bay District

February 1968

SUMMARY OF DISCUSSION

U.S. BUREAU OF LAND MANAGEMENT
OREGON STATE OFFICE

and

FWPCA, NORTHWEST REGION

On March 11, 1970, the Bureau of Land Management (BLM), Oregon State Office, met with the following from the Federal Water Pollution Control Administration (FWPCA), Northwest Region:

Hurlon C. Ray, Director, State & Federal Assistance Programs
Lloyd A. Reed, Federal Activities Coordinator
Herbert C. Clare, Special Assistant, State Program Plans
Dr. Richard B. Marston, Water Quality Management Specialist
Merritt A. Mitchell, Sanitary Engineer, Federal Activities Branch

The meeting was held in the BLM office in Portland.

The purpose of the meeting was to undertake an annual review of programs for the prevention, control, and abatement of water pollution from BLM facilities and activities in Oregon and Washington, and to discuss coordination of FWPCA responsibilities with the BLM in these matters. Also scheduled for discussion were legislation and trends, including the National Environmental Policy Act of 1969, Executive Order 11507, dated February 4, 1970, and Title 43 - Public Lands: Interior, pertaining to regulations for mineral leases.

The following BLM personnel participated in the program review:

Archie Craft	State Director
Gerald G. Wright	Assist. to State Director
Doug Morrison	Easement Specialist
Ken Roegner	Fire Protection
Warren Sandau	Range & Watershed
James A. Moorhouse	Program Coordination
R. B. Campbell	Forest Development
Austin R. Magill	Fishery Biologist
William A. Cowan	Timber Sales-Contracts
Howard R. DeLano	Chief Branch Range & Watershed
Merle H. Winn	Chief Division of Engineering
John R. Welch	Chief Branch Minerals
Henry A. Froehlich	Forest Hydrologist

Dich Schlachter	Chief Branch of Roads
Bill Bieg	Chief Branch Rec. & Structures
Murl Storms	Chief, Div. Resource Program Management
Reginald A. Ross	Range Mgmt. Specialist
Kenneth Burkholder	Chief, Branch Resource Services

Mr. Ray indicated that administrative level contacts by BLM with FWPCA should be made with the Regional Director, or with the Regional Director, Attn: Director, State and Federal Assistance Programs. He further indicated that Lloyd A. Reed has been appointed as Federal Activities Coordinator, as well as Chief, Federal Activities Branch, and that operational or field level contacts should be made with him.

The following items were on the agenda for this meeting:

1. FWPCA organization at the National and Regional levels.
2. New legislation and trends including the National Environmental Policy Act and Executive Order 11507.
3. Water quality standards--interstate, intrastate, and the Anti-degradation standard.
4. BLM history and organization at the Washington office, as well as State office levels.
5. BLM programs carried out by the Engineering Division and Resource Management.

Mr. Ray discussed FWPCA organization and indicated that at the Headquarters level the Administration is under an Assistant Secretary for water pollution control. At the head of the FWPCA Washington office is a Commissioner and four Assistant Commissioners. The Administration is divided into nine Regional offices which are set up on a basin basis. The one in the Northwest is known as the Northwest Region and covers the Columbia River Basin, the waters draining to the Pacific Ocean and Puget Sound from Oregon, Washington, and the State of Alaska. The Regional program is headed by a Regional Director, a Deputy Director, and Program Directors as follows:

1. Regulatory Programs
2. Technical Programs
3. River Basin Planning
4. State and Federal Assistance Programs
5. Administration

In addition, there are two Laboratories located within the Region, one at Corvallis and one at Fairbanks, Alaska. The basic functions of these Laboratories are threefold: 1. Research in connection with Regional problems and problems for which National responsibilities have been assigned. (For example, at Corvallis the Laboratory handles the nationwide problems of research and study of eutrophication, thermal pollution, and coastal pollution. The Laboratory at Fairbanks handles research and studies in connection with water quality problems in cold climates.) 2. Pollution control investigations, experiments, field demonstrations, and studies in connection with water pollution. 3. Training relative to the prevention and control of water pollution.

Congress has appropriated $800 million for construction grants to municipalities for waste treatment facilities. In this connection, Mr. Ray indicated that regulations may be changed to provide that offers of grants or funds from this appropriation would be made only to help finance secondary treatment facilities. In the past, primary treatment plants have been eligible for grants.

Mr. Ray commented on demonstration grants which are made for the purpose of helping finance projects demonstrating new waste treatment procedures that will have area or nationwide application. There was also a reference to state program grants which are made to state water pollution control agencies to help finance additional water pollution control activities over and above activities which are financed by state appropriations. Planning grants are made to pay for administrative expense of planning agencies where such agencies provide for adequate representation of appropriate state, interstate, or local interests for developing comprehensive water quality control and abatement planning for a basin.

He stated that most FWPCA research is done under contract. This is in addition, of course, to the regular research programs and projects carried out by the two Laboratories referred to above.

Mr. Ray asked Mr. Clare to discuss the subject of standards which must receive consideration by BLM in its operations. Mr. Clare pointed out that besides the State-Federal standards on interstate waters, there are also state standards on intrastate waters. In addition, there are standards in Executive Order 11507 and the Anti-degradation standard which is an effluent standard applying to high quality waters.

Under the Federal Water Pollution Control Act, a standard is made up of both criteria and an implementation plan for these criteria. State-Federal standards on interstate waters are subject to review and approval by the Secretary of the Department of the Interior, but state standards on intrastate waters are not subject to such review and approval. Interstate waters are extensive in the Northwest and include not only streams that cross or form a part of the boundaries of two or more states, but also all coastal waters which include estuarine waters up to the head of tidal influence.

Standards in the Executive Order require, among other things, secondary treatment for wastes discharged from Federal facilities and installations. (More and more frequently the term "at least 85% removal" is appearing in discussions of secondary treatment.) Frequently tertiary or even "complete" treatment is needed. An example of "complete" treatment would be by means of a lagoon with percolation and evaporation balancing inflow and precipitation. A properly functioning septic tank-subsurface disposal system, having no discharge to surface waters, might also be considered a "complete" treatment system.

The Anti-degradation standard was established to protect and conserve the quality of clean waters like those which are so abundant in the Northwest. The standard means that any activity or use of water or discharge of a waste should result in a minimum degree of quality degradation. For the most part, this means, for example, that wastes should receive at least secondary treatment or its equivalent. In many instances it may be necessary to give wastes tertiary treatment to protect water quality or to prevent the direct discharge of wastes entirely. Federal agencies should comply with the highest of the four standards referred to above.

Mr. Reed discussed the provisions in the new Executive Order 11507 which covers both air and water pollution control and prevention for Federal facilities and activities, and supersedes Executive Order 11288. He indicated that the new Order gives a much stronger mandate for the Federal agencies to control water pollution at both existing and new installations. A deadline of December 31, 1972, has been established when actions necessary to meet the requirements of the Order are to be completed or under way at all existing installations. Funds appropriated for waste treatment cannot be used for other purposes. The Order provides for the setting of performance specifications (effluent standards) for all installations. The Federal agencies are also directed to conform to applicable water quality standards. While the language of the new Order is not as specific, land management practices of Federal agencies are included within its purview.

It is understood that an additional Executive Order will be addressed to the subject of loans, grants, and contracts. Such subject matters are not specifically included in Executive Order 11507.

Although the agenda included a note to discuss the application of Executive Order 11296 pertaining to "Evaluation of Flood Hazard in Locating Federally Owned or Financed Buildings, Roads, and Other Facilities, and in Disposing of Federal Lands and Properties," the BLM representatives indicated that they are thoroughly familiar with the provisions of this Executive Order and the assistance available in carrying out its provisions from the C/E. This item, therefore, was not discussed in any detail.

Mr. Ray asked Mr. Clare to discuss enforcement procedures under the Federal Water Pollution Control Act. He indicated that they are really set up for use in contiguous states where interstate pollution can be demonstrated. The steps followed in an enforcement action are: (1) A conference among the interstate agencies establishing the seriousness of the pollution problem, what should be done about it, and when, by establishing a schedule or time table; (2) A hearing which covers about the same general outline as the conference but is more formal and at a higher legal standing; and (3) Reference to a Federal court. The only case in the United States, in which an enforcement action has been taken as far as the court, is in the case of St. Joseph, Missouri, where a court order has been issued and a decision is pending.

Where delays are occurring and no efforts are made to comply, the State is given the first opportunity to seek enforcement action. Where it is determined that more direct or concurrent Federal action is necessary, there are alternatives for action: Federal enforcement action or revision of implementation schedules in the standards, if they are unrealistic.

Should Federal enforcement action be warranted, the Department may serve notice to the violators (in accordance with Section 10(c)(5) of the Act, the violators and other interested parties must be advised at least 180 days before court action can be taken.) Direct enforcement action is limited to cases where the effects of pollution are interstate or, with the enforcement conference procedures, economic injury has resulted from the failure to market shellfish in interstate commerce.

FWPCA is in the process of developing an inventory of Federal installations and facilities served by water carriage-sewerage systems. These inventory data are being compiled with the assistance of BLM and other Federal agencies and will be stored in FWPCA's ADP system, STORET. This will permit retrieval of needed inventory data at any time. As soon as printouts are available, BLM will be supplied with a copy of inventory data for their installations.

There was considerable discussion of monitoring and sources of laboratory services for sample analyses. FWPCA indicated that their laboratory facilities are very limited and that only high priority analyses can be made. BLM said that some laboratory services are available from the Oregon Department of Environmental Quality but that these are also limited. Commitments for assistance by FWPCA in sampling or analysis of samples must be carefully planned because of the limitations in available laboratory services.

Water samples for chemical analyses should be taken only where there is an established need for the information which will be forthcoming. The results of analyses must be interpreted and if outside assistance is needed in interpretation of sample results, that agency should probably have a part in planning for the sampling procedure. It should also be borne in mind that results of analyses of samples often follows by days and perhaps weeks, the time of sampling. In other words, the results indicate what the water quality was instead of what it is. BLM should be encouraged to set up a well-planned monitoring program and should feel free to call on FWPCA for assistance in designing such a program.

Mr. Mitchell discussed the importance of proper and appropriate "contract language" for protection of water quality in carrying out BLM activities. He emphasized the importance of building into a contract adequate features for preventing water quality degradation rather than to go ahead with the contract and later take the samples to see whether or not the wording was appropriate. Since the Forest Service and BLM have "written the book" on road construction standards and things of this nature, it is felt that BLM is in an excellent position to provide for adequate water quality protection in drawing up contract wording. This feature could be included in such things as timber sale contracts, permits for recreational facility operations, plans for airport construction, right-of-ways for power lines, etc., mining leases or patents, mineral or other exploration permits, public land orders, special use permits, and contracts for fire fighting activities.

Mr. Mitchell discussed the progress which had been made through coordinated and cooperative activities in Alaska where the BLM and FWPCA have developed appropriate language for protection of water quality in right-of-way permits; for example, for a crude-oil pipeline serving the North Slope. Mr. Mitchell indicated that FWPCA would be glad to work with BLM and Interior Solicitors in developing appropriate wording to be incorporated in contracts or contract documents in the interests of water quality conservation.

Murl Storms discussed the organization of the BLM and development of present-day programs from a beginning in 1776 with the Land Office and Public Land Surveys through the General Land Office, Taylor Grazing Act, O & C Management, and the creation of BLM per se in 1946. Since that time BLM has brought positive management into the public land activities. In 1952 the first attempts were made at area management for multiple-use. He pointed out the difficulties in securing a balance of uses in the early days because of special interests and indicated further that by 1967 the public became so interested in public lands that multiple-use is now accepted and, in fact, the present terminology is "environmental quality management."

Mr. Storms also reviewed the BLM organization from the Washington office through the ten state offices indicating that the State office located in Portland serves both Oregon and the BLM holdings in Washington. Also there is a Portland Service Center located here. This Service Center has technical programs; for example, engineering, forestry, range management, staff, etc. The State office has a State Director and four Division: that is, Administration, Lands and Mineral, Engineering, and Resource Program Management. There are 11 District offices having personnel contingents of 12 to 130 people.

Mr. Winn discussed the program in the Division of Engineering indicating that it is divided into five branches; structures and recreation, roads, rights-of-way, electronic communications, and cadastral surveys.

BLM has three major road construction programs within the state. They are as follows: 1. roads constructed by timber sale purchasers wherein the BLM establishes the standards, specifications, and location; 2. BLM appropriated funds under the O&C Grant Land appropriation in western Oregon; these roads are mainline access roads and are surveyed, designed, and the contracts prepared and administered by the U.S. Federal Highway Administration, Bureau of Public Roads; 3. Public Land Development roads and trails are built from appropriated funds in the eastern Oregon district by either force account or contract. In all of these cases, BLM establishes the standards and specifications for the road or trail construction, designates the location, and provides for construction in such a way that erosion and other water quality problems will be minimized. It is the general practice that roads will not be built with a grade greater than 8% unless doing so will result in less damage or siltation in staying with the 8% grade. In some cases an 8% grade would result in greater destruction to the soil than going to a steeper grade. If it is necessary to build steeper grades than 8%, the exceptions must be documented and justified in advance of construction. Abandoned roads are water barred and seeded.

FWPCA, as well as BLM, recognizes the serious problem which can develop from erosion through road construction, use, and maintenance. They are anxious to build into the standards for road planning and construction preventive measures to control this problem.

BLM has a schedule for 1971 for the hydromulch seeding of side slopes and fills along 200 miles of roads. Hydromulch seeding involves use of seed and fertilizers with mulch. Some seeding is done with dry mulch and some without mulch. Mr. Schlachter discussed road maintenance programs and contracts and indicated that precautions are built into these procedures and contracts in the interests of water quality control. The maintenance involves such things as grading, opening ditches, and removing and disposing of slide material, etc. It is apparent that there is an opportunity here for more detailed discussions by BLM and FWPCA on improvement of procedures for maintenance operations.

Mr. Bieg discussed BLM's recreation program and pointed out that in connection with design and construction of waste treatment facilities, it is the practice to confer with FWPCA. At this point, attention was called to the provision in the new Executive Order that water treatment plant operators should be adequately qualified and, where appropriate, certified as plant operators.

Mr. Morrison discussed right-of-way procedures for logging roads and the system followed in issuing permits for private operators to cross BLM land. Permits have conditions for erosion control and, if necessary, may be renegotiated to include water quality protection. He indicated that road management is the big part of BLM operations. This involves approximately 6500 miles of permanent road and 700 miles of primitive road.

Mr. Storms discussed recreational planning processes especially as they pertain to wild and scenic Rivers such as the Rogue, Deschutes, Owyhee, John Day, etc. Mr. Storms indicated that the planning for the recreational facilities should be completed in about 3 years with a hope that construction could be completed at the end of 5 years. He also pointed out that in Western Oregon especially, good water and scenery conflict with timber harvesting. In other words, as he said, a clear-cut area doesn't "look good". Mr. Wright stated that scenic easements may include water quality protection features.

In connection with the discussion of recreational facilities, the problem of solid waste disposal was brought up. The use of plastic bags for collection of garbage, refuse, and human wastes aggravates the disposal problem because plastic bags are resistant to decomposition. The most practical disposal method for these wastes ordinarily would be in a sanitary landfill (with proper location, daily compaction, and coverage) or in a "slit-trench" carefully located and with provisions for daily coverage.

Disposal of debris and slash in logged areas lead to two problems, one of smoke and the other water quality problem from siltation. Mr. Storms and Mr. Delano discussed BLM's livestock manipulation programs which are designed to control livestock and grazing in such a way as to improve ground cover and range characteristics in the interests of conservation, erosion prevention, and consequently, water quality management. In this connection, they pointed out the importance of development of watering facilities for livestock and water holes for big game. If these can be located properly, congregation or concentration of animals can be prevented, thus, enhancing the ground cover characteristics and improving vegetative cover through livestock manipulation.

Mr. Storms discussed the formation of a Management Planning Unit in BLM. This Unit reconciles conflicting interests and places priorities which can be used in following through on specific uses. It was suggested that FWPCA have a follow-up meeting with this Unit in BLM for the purpose of discussing activities and implementation of management plans in the interest of water quality protection.

Mr. Froehlich reported on soil inventory progress and discussed the interpretation and use of inventory data by Bureau soil scientists, and other resource personnel.

Mr. Sandau discussed the Bureau's soil and watershed conservation program emphasizing that the primary objectives of the program were - to manage and invest in public watersheds to the extent necessary to protect lands from further deterioration. He reported on land treatment practices, brush control and seeding, utilized to retard surface run-off waters and stabilize soil resources. At the same time, he pointed out that the Bureau's chemical brush control program was at present in question due to recent national concern over the use of pesticides.

SUMMARY OF DISCUSSION
U.S. CORPS OF ENGINEERS, SEATTLE DISTRICT
and
FWPCA, NORTHWEST REGION

On December 11, 1969, the Corps of Engineers, Seattle District, met with the following people from the Federal Water Pollution Control Administration (FWPCA), Northwest Region: Hurlon C. Ray, Director, State and Interagency Programs; Herbert C. Clare, Federal Activities Coordinator; Dr. Robert Zeller, Acting Chief, River Basin Studies, and William A. Newell, Sanitary Engineer, Federal Activities Coordination Branch. The meeting was held in the Corps' office in Seattle, Washington.

The purpose of the meeting was to undertake an annual review of programs for prevention, control, and abatement of water pollution from existing or proposed Corps of Engineers' installations, facilities, or activities in relation to Executive Order 11288, and to discuss FWPCA responsibilities in working with the Corps of Engineers (C/E) in these matters. Provisions for such a discussion are established in the Memorandum of Agreement between the Department of the Interior and the Department of Defense, dated September 13, 1968. The purpose of this Agreement is to clarify certain sections and procedures established in the "Guidelines for the Prevention, Control, and Abatement of Water Pollution by Federal Activities" dated July 1967 and issued by the FWPCA. The following C/E personnel participated in the review:

W. C. Alguard	Chief, Nav Flood Control Br, Operations Division
R. R. Ekstrom	Chief, Operations Division
Sydney Steinborn	Chief, Engineering Division
Robert J. Ayers	Dist Fisheries Biologist, Planning Br, Engrg Div
Arthur R. Gerlach	Asst. Dist. Fisheries Biologist, Planning Br. Engineering Division
W. V. Peterson	Civil Engineer, Hydraulic Section, Planning Branch, Engineering Division
George Lemke	Chief, Flood Plain Management Investigation

The District Engineer, Seattle District, is presently selecting a contact for coordination of FWPCA-C/E activities in the Seattle District. Such a designation will be made in the near future. In the meantime, FWPCA will communicate with the Seattle District Engineer and he in turn will direct communications to the appropriate C/E staff officer. Mr. Ray indicated that the principal field level contact with the C/E should be with the FWPCA's Federal Activities Coordinator, Herbert C. Clare.

The following items were on the agenda for this program review meeting:

1. A discussion of Executive Order 11288, its interpretation and application.
2. Water quality standards.
3. Memoranda of Agreement and Understanding between our two departments.
4. Section 807, Military Construction Authorization Act. (PL 90-408.)
5. River Basin Planning Activities.
6. Coordination of Activities by the two agencies which can best bring about objectives of preventing, controlling, and abating water pollution.

Mr. Ray reviewed some of the recent developments in Water Pollution Control Administration, especially recent legislation and its effects on our mutual programs as well as proposed legislation which could have considerable influence on these operations. He also reviewed the Headquarters and Regional Office organization of FWPCA and referred to the two laboratories within the Region - one at Corvallis, Oregon, and the other at Fairbanks, Alaska. The basic functions of these Laboratories are threefold:

1. Research in connection with Regional problems and problems for which national responsibilities have been assigned. For example, at Corvallis, the Laboratory handles the nationwide problems of research and study on eutrophication, thermal pollution, and coastal pollution.

2. Control investigations, experiments, field demonstrations, and studies in connection with water pollution.

3. Training relative to the prevention and control of water pollution.

Congress has proposed $800 million for construction grants to municipalities for waste treatment facilities. In this connection, Mr. Ray indicated that regulations may be changed to provide that grant offers of funds from this appropriation would be made only to help finance secondary treatment facilities. In the past, primary treatment plants have been eligible for grants.

Mr. Ray commented on demonstration grants which are made to governmental agencies or industries for the purpose of demonstrating new waste treatment procedures that will have area or nationwide application. There was also a reference to state program grants which are made to state water pollution control agencies to help finance additional water pollution control activities over and above activities which are financed by state appropriations. Planning grants are made to pay for administrative expenses of planning agencies where such agencies provide for adequate representation of appropriate state, interstate, or local interests for developing comprehensive water quality control and abatement planning for a basin.

I' . Clare reviewed provisions of Executive Order 11288 and referred to the Guidelines which have been set up to implement the Executive Order for the prevention, control, and abatement of water pollution by Federal installations or activities. He summarized the policy statement of the Executive Order which indicates that Federal agencies should take the lead and set the example in water pollution control prevention or abatement.

There was detailed discussion of Section 2 and 3 of the Executive Order pertaining to waste treatment facilities for new and existing Federal facilities and buildings respectively. Under these Sections, responsibility for design, construction, and operation of treatment works rests with the Corps of Engineers. However, the Executive Order indicates that FWPCA should review these proposed designs and advise the Corps as to effectiveness and adequacy of proposed treatment and improvement. In this connection, compliance with state and local criteria are considered by FWPCA.

Since FWPCA is responsible for advising the Corps on new installations or improvement of existing installations, it has been the feeling of FWPCA, and is indicated in the Guidelines for implementation of the Executive Order, that the primary responsibility for evaluating adequacy of proposed design rests with FWPCA and not with the state agency in which the installation is located. This is especially true for installations which are located on interstate waters and in which at least two states have an interest in adequacy evaluations.

In this connection, the Seattle District Corps of Engineers has distinguished between new installations and improvements to existing installations and has indicated that such installations at existing projects shall be coordinated through FWPCA. However, coordination of planning and design of facilities at new projects will be handled directly by the District with both FWPCA and appropriate state agencies simultaneously. Since FWPCA is unable to see the need for distinction between the method of coordination for the two types of projects, FWPCA again repeated its offer to serve as coordinators for all installations under Sections 2 and 3 of the Executive Order. Since the District indicated they believe the Executive Order distinguishes between existing and new projects, coordination by FWPCA with the state agencies regarding new Corps projects, the District believes, would constitute an unauthorized delegation of Corps responsibility to FWPCA. Furthermore, some state agencies have strongly indicated to the District that they prefer direct coordination with the construction agency.

Reviews of projects under Sections 2 and 3 of the Executive Order by FWPCA are based on examination of plans and specifications or studies of essential features provided by the Corps of Engineers. Reviews of such plans and specifications or essential features and consolidated comments are returned to the C/E reflecting the review comments by the state water pollution control agency and FWPCA. It is in the interest of best coordination to consider all standards and criteria and FWPCA is in an excellent position to do this. The Corps feels, however, that direct coordination between the Corps and state agencies should still permit FWPCA to consider all standards and criteria in reviewing proposed facilities.

Mr. Clare developed the subject of standards in some detail. It was pointed out that besides state-Federal standards on interstate waters, there are also state standards on intrastate waters. In addition, there are standards in Executive Order 11288, and the Anti-degradation standard which is an effluent standard.

Under the Federal Water Pollution Control Act, a standard is made up of both criteria and an implementation plan for these criteria. State-Federal standards on interstate waters are subject to review and approval by the Secretary of the Department of the Interior, but state standards on intrastate waters are not subject to such review and approval. Interstate waters are extensive in the Northwest and include not only streams that cross or form a part of the boundaries of two or more states, but also all coastal waters which include estuarine waters to the head of tidal influence.

Standards in the Executive Order require, among other things, secondary treatment for wastes discharged from Federal facilities and installations. More and more frequently the figure "85% removal" is appearing in discussions of secondary treatment. There was some discussion of the practicability of this degree of treatment in large estuaries such as Puget Sound.

It was further pointed out that the standards in the Executive Order state that the preferred method of waste disposal from Federal installations is through a municipal system and treatment facilities. The treatment of wastes by septic tank with subsurface disposal is generally accepted as being equal to secondary treatment for small installations when properly and adequately designed and maintained.

The Anti-degradation standard was established to protect and conserve the quality of clean waters which are so abundant in the Northwest. The standard means that any activity or use of water or generation of a waste should result in a minimum degree of quality degradation. For the most part, this means, for example, that wastes should receive at least secondary treatment or its equivalent. In many instances it may be necessary to give wastes tertiary treatment to protect water quality or to prevent the direct discharge of wastes entirely. Mr. Clare indicated that in his opinion Federal agencies should comply with the highest of the four standards referred to above.

Mr. Lemke gave a very helpful discussion on the significance and applications of Executive Order 11296 pertaining to "Evaluation of Flood Hazard in Locating Federally owned or Financed Buildings, Roads, and Other Facilities, and in Disposing of Federal Lands and Properties." He indicated that in order to fully comply with Executive Order 11296, extensive efforts toward data accumulation and flood hazard evaluation must be combined with interagency cooperation at all levels of government. He indicated that flood damage can be prevented or drastically reduced by a realistic approach to wise use of available land and flood-proofing, where necessary. The Corps of Engineers, under its Flood Plain Management Services Unit, is able to provide technical assistance and flood-hazard evaluation anywhere in the Seattle District.

Every effort is made to respond without delay so that planning for any project can proceed with complete awareness of flood potential. The Corps is in a position to recommend appropriate flood-proofing measures, and works with the Flood Insurance Administration in helping establish rates for flood insurance.

This work is done by the Corps under the provisions of Executive Order 11296 without reimbursement cost from the agency requesting advice in these matters. For individuals or industry the Corps supplies copies of available data and information. For governmental agencies it supplies not only data but an interpretation of their application in specific instances.

Mr. Steinborn expressed an interest in small watershed management projects under Public Law 566. He indicated that considerable Federal funds are expended on such Federal projects and that he hoped that substantive reviews by FWPCA of such projects are routinely made.

The impact of small boat harbor construction was also discussed and the C/E stated that they were in the process of organizing small boat harbor concepts to facilitate their review. Presently there are at least five in various stages of planning for the Puget Sound area.

Mr. Steinborn suggested that FWPCA consider the possibility of using C/E professional engineering personnel to assist on inspection of the various construction grant projects that will probably occur under the increased funding allocated for this phase of FWPCA activity. Such assistance would be on a reimbursable basis. Details of this assistance will be discussed at the proposed meeting on January 9, 1970, between FWPCA and Corps of Engineers, North Pacific Division, personnel in Portland.

There was some discussion of enforcement procedures in connection with water quality standards and responsibility for monitoring and securing compliance with these standards on the part of the Federal agency generating and treating wastes as well as FWPCA and the states concerned. Mr. Clare pointed out that enforcement procedures under the Federal Act are really set up for use in contiguous states where interstate pollution can be demonstrated. The steps followed in an enforcement action are: (1) a conference among the interstate agencies establishing the seriousness of the pollution problem, what should be done about it, and when; (2) a hearing which covers about the same general outline as the conference but is more formal and higher legal standing, and (3) reference to a Federal court. The only case in the United States in which an enforcement action has been taken as far as the court, is in the case of St. Joseph, Missouri, where a court order has been issued and a decision is still pending.

It was indicated that monitoring of effluent is logically the responsibility of the agency generating, treating, and discharging the waste, while monitoring streams should be a responsibility of the state and/or the FWPCA.

FWPCA could logically be expected to have more responsibility for monitoring interstate waters while the state would have the primary responsibility for monitoring intrastate waters.

The two agreements between the agencies were discussed in some detail. These are: (1) Memorandum of Agreement between the Department of the Interior and the Department of Defense dated September 13, 1968, and (2) a Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army dated July 13, 1967.

There was a brief discussion of reports which should be made to the Bureau of the Budget in accordance with Executive Order 11288 for existing installations that need improvement or enlargement. Implementating this requirement in the Executive Order is Bureau of the Budget Circular A-81 which provides that reports should be made in three formats: (1) format A listing of existing projects which need to be improved or enlarged; (2) format B indicates the cost of such improvements and plans for budgeting for this necessary change over a period of time, and (3) format C indicates progress in making improvements in existing installations.

Dr. Robert Zeller discussed River Basin Planning Activities, especially flow regulation studies for water quality control. He indicated that there has been an organizational transition in the conduct of the studies from: (1) the years under which flow regulation studies were completed within the framework of the comprehensive planning program; (2) the present situation under which flow regulation studies are not integrated with river basin planning activities.

Dr. Zeller also reported that there has been considerable development in the level of proficiency with which these studies are conducted. At the present time the FWPCA is capable of producing effective reports within limited time periods. To demonstrate this capability, however, FWPCA needs to resolve two major problems: (1) an organizational problem, the solution of which will define the role of flow regulation studies within the regional program of water quality control planning; and (2) a scheduling problem, the solution of which will permit FWPCA to coordinate flow regulation studies with the needs of other Federal and state agencies and to establish levels of priorities on individual projects on the basis of needs and timing.

Dr. Zeller discussed the letters sent to the several districts of the C/E and area engineers of the Bureau of Reclamation by Mr. James L. Agee, Regional Director, FWPCA, under date of December 5. This letter requested assistance of the Corps and the Bureau in the scheduling of project studies through fiscal year 1971. The C/E's response to this letter has subsequently been received.

Section 7 of the Executive Order 11288 states that the heads of departments, agencies, and establishments should prescribe regulations and conditions or stipulations concerning conservation or enhancement of water quality in connection with executing contracts or in providing loans or grants. In previous meetings witn C/E, FWPCA had indicated tnat work done under dredging permits came under Sec. 7. However, after discussions with the Seattle District, it is now agreed that coordination of permit applications is provided under the Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army, signed on July 13, 1967.

There was a brief reference to Section 8 of the Executive Order pertaining to waste from water craft. FWPCA has prepared a report evaluating this problem and has recommended the development of standards and a program for improving waste treatment in connection with water craft operation. The C/E is interested in this matter since it is involved to some extent in the development of plans for marinas, small boat harbors, and other recreational facilities on navigable waters. It was the suggestion of FWPCA that such plans include at least space for waste storage and handling facilities.

Attachments:

1. Executive Order 11288
2. Guidelines for prevention, control, and abatement of water pollution by Federal activities.
3. Memorandum of Agreement between the Department of the Interior and the Department of Defense
4. Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army
5. The Anti-degradation standard.

H. C. Clare
January 7, 1970

SUMMARY OF DISCUSSION
U.S. CORPS OF ENGINEERS, PORTLAND DISTRICT
and
FWPCA, NORTHWEST REGION

On December 17, 1969, Hurlon C. Ray, Director, State and Interagency Programs, Dr. Robert Zeller, Acting Chief, River Basin Studies, Herbert C. Clare, Federal Activities Coordinator, and William A. Newell, Sanitary Engineer, Federal Activities Coordination (FWPCA), Northwest Region, met with the Corps of Engineers (CofE), Portland Director, in the office of the Corps.

The purpose of the meeting was to undertake an annual review of programs for prevention, control, and abatement of water pollution from existing or proposed CofE installations, facilities, or activities in relation to Executive Order 11288, and to discuss Federal Water Pollution Control Administration (FWPCA) responsibilities in working with the CofE in these matters. Provisions for such a discussion are established in the Memorandum of Agreement between the Department of the Interior and the Department of Defense, dated September 13, 1968. The purpose of this Agreement is to clarify certain sections and procedures established in the "Guidelines for the Prevention, Control, and Abatement of Water Pollution by Federal Activities" dated July 1967 and issued by the FWPCA

The following staff personnel from the Corps of Engineers, Portland District, were in attendance:

LTC Paul D. Triem	Deputy District Engineer
Bill Clumpner	Chief, Project Operations Div.
Bud Ossey	Chief, Recreation Operations, POD
Jack Braithwaite	Civil Engineer, Proj. Opns, Div.
Donald A. Nelson	Office of Counsel
Norman W. Gerlach	Acting Chief, Design Branch
Harold A. Kidby	Chief, Design Branch
Clifford H. Walstrom	Chief, M & D, Real Estate Div.
Harding Carlson	Recreation Design Engr., Design Br.
Wm. J. Ashworth	Chief, Real Estate Division
Ira D. Moore	Chief, Recreation Planning
Bob Hopman	Civil Engr., Dredge Oper., Nav.Div.
Henry Stewart	Chief, Planning Branch
Bill Akre	Chief, Flood Plain Mgmt. Services Unit
Wm. J. Donner	Chief, Relocations Section

The District Engineer, Portland District, has designated Mr. W. H. Clumpner, Chief, Project Operations Division, as contact for coordination of FWPCA/CofE activities in the Portland District.

Mr. Ray indicated that the principal field-level contact with the CofE should be with FWPCA's Regional Federal Activities Coordinator, Herbert C. Clare.

The following items were on the agenda of this program review meeting:

1. A discussion of Executive Order 11288 - its interpretation and application.
2. Water Quality Standards.
3. Memoranda of Agreement and Understanding between our two departments.
4. River Basin Planning Activities.
5. Coordination of activities by our two agencies which can best bring about objectives of preventing, controlling, and abating water pollution.

In addition, the CofE led discussions on the following points:

1. Consideration of features affecting water quality during planning stage.
2. Organizational coordination and discussion of new concepts when planning new construction.
3. Policies for operational projects.
4. Policies within navigational jurisdiction.
5. Legal responsibilities.

Mr. Ray reviewed some of the recent developments in water pollution control administration and recent legislation and their effects on our mutual programs. He reviewed proposed legislation which could have considerable influence on these operations. He discussed the Headquarters and Regional Office organization of FWPCA and referred to two laboratories in the Region--one at Corvallis, Oregon, and the other at Fairbanks, Alaska. He indicated that the basic functions of these laboratories are threefold:

1. Research in connection with Regional problems and problems for which National responsibilities have been assigned. For example, at Corvallis, the Laboratory handles the Nationwide problems of research and study on eutrophication, thermal pollution, and coastal pollution. The Laboratory at Fairvanks handles problems in connection with cold climate.

2. The second responsibility of the Laboratories is in connection with water pollution control investigations, experiments, field demonstrations, and studies, and the third is,

3. Training relating to the prevention and control of water pollution.

Mr. Ray also referred to the $800 million dollar appropriation proposed by Congress for construction grants to municipalities for waste treatment facilities. In this connection, he indicated that regulations may be changed to provide that grant offers of funds from this appropriation would be made only to help finance secondary treatment facilities. In the past, primary treatment plants have been eligible for grants.

Mr. Ray commented on the demonstration grants which are made to governmental agencies or industries for the purpose of demonstrating new waste treatment procedures that will have area or nationwide application. There was also a reference to State program grants which are made by FWPCA to State water pollution control agencies to help finance additional water pollution control activities over and above activities which are financed by State appropriations. There was also a reference to planning grants which are made to pay for administrative expenses of planning agencies where such agencies provide for adequate representation of appropriate State, interstate, or local interests for developing comprehensive water pollution control and abatement planning for a basin.

Mr. Clare reviewed provisions of Executive Order 11288 and referred to the Guidelines which have been set up to implement the Executive Order for the prevention, control, and abatement of water pollution by Federal installations and activities. He summarized the policy statement of the Executive Order, which indicates that Federal agencies should take the lead and set the example in water pollution control prevention or abatement.

There was detailed discussion of Sections 2 and 3 of the Executive Order pertaining to waste treatment facilities for new and existing CofE facilities and buildings respectively. Under these Sections, responsibility for design, construction, and operation of treatment works rests with the CofE. However, the Executive Order indicates that FWPCA should review these proposed designs and advise the Corps as to effectiveness and adequacy of the proposed treatment and improvement and whether or not they should comply with standards of the Executive Order and other applicable standards. In this connection, compliance with State and local criteria are considered by FWPCA.

Since FWPCA is responsible for advising the Corps on new installations, or improvement of existing installations, it has been the feeling of FWPCA and is indicated in the Guidelines for implementation of the Executive Order, that the primary responsibility for evaluating adequacy of proposed design rests with FWPCA and not the State agency in the State in which the installation is located. This is especially true for installations which are located on interstate waters and in which at least two States have an interest in evaluations of adequacy. In other words, it is FWPCA's feeling that it should be the coordinating agency that should serve as liaison between the CofE and the State water pollution control agency on matters covered by Sections 2 and 3 of the Executive Order.

Reviews of projects under Section 2 and 3 of the Executive Order by FWPCA are based on examination of plans and specifications or studies of essential features provided by the CofE. Reviews of such plans and specifications or essential features and consolidated comments are return to the CofE reflecting the review comments by the State water pollution control agency and FWPCA. As indicated above, it is in the interests of best coordination to consider all standards and criteria and FWPCA is in an excellent position to do this.

Mr. Clare developed the subject of standards in some detail. It was pointed out that besides State-Federal standards on interstate waters, there are also State standards on intrastate waters. In addition, there are standards in the Executive Order 11288 and the Anti-degradation standard, which is an effluent standard. All of these standards should be followed by the Federal agencies when discharges are generated or activities have an impact on water quality.

Under the Federal Water Pollution Control Act, a standard is made up of both criteria and implementation plan for these criteria. Mr. Clare pointed out that the standards on interstate waters are subject to review, approval, and adoption by the Secretary of the Department of the Interior, but that State standards on intrastate waters are not subject to such review and approval. Interstate waters are extensive in the Northwest and include not only streams that cross or form a part of the boundaries of two or more States, but also all coastal waters which, in turn, include estuarine waters to the head of tidal influence.

The standards in the Executive Order require, among other things, secondary treatment for wastes discharged from Federal facilities and installations. More and more frequently, the figure "85% removal" is appearing in discussions of secondary treatment. There are some discussions of the practicability of this degree of treatment in large estuaries such as Puget Sound. It was further pointed out that the standards in the Executive Order state that the preferred method of waste disposal from Federal installations is through a municipal system and treatment facilities.

The treatment of wastes by septic tanks with subsurface disposal is generally accepted as being equal to secondary treatment for small installations when properly and adequately designed, located, and maintained.

The Anti-degradation standard was established to protect and conserve the quality of clean or high quality waters which are so abundant in the Northwest. The standard means that any activities or use of water or generation of waste by an activity, installation, or facility should result in a minimum degree of quality degradation. For the most part, this means, for example, that wastes should receive at least secondary treatment or its equivalent and that plans for activities should have "built in" pollution prevention provisions. In some instances, it may be necessary to give wastes tertiary treatment to protect water quality or to entirely prevent the direct discharge of wastes. Also it may be necessary in some instances to drastically modify plans for "activities." Mr. Clare indicated that in his opinion Federal agencies should comply with the highest of the four standards referred to above.

Mr. Bill Akre, Chief, Flood Plain Management Services Unit, CofE, gave a very helpful discussion of the significance and application of Executive Order 11296 pertaining to "Evaluation of flood hazards and locating Federally-owned or financed buildings, roads, and other facilities and disposing of Federal lands and properties." He indicated that in order to fully comply with the Executive Order 11296 extensive efforts toward data accumulation and flood hazard evaluation must be combined with interagency cooperation at all levels of government. He indicated that flood damage in the Northwest can be prevented or drastically reduced by a realistic approach to wise use of available land and flood-proofing, where necessary. The CofE, under its Flood Plain Management Services Unit, is able to provide technical assistance and flood-hazard evaluation anywhere in the Northwest. Every effort is made to respond without delay so that planning for any project can proceed with complete awareness of flood potential. The CofE is in a position to recommend appropriate flood-proofing measures, and works with the Flood Insurance Administration in helping establish rates for flood insurance.

This work is done by the Corps under the provisions of Executive Order 11296 without reimbursement of cost by the agency requesting advice in these matters. For individuals or industries the Corps supplies copies of available data and information. For Governmental agencies it supplies not only data but an interpretation of their application in specific instances.

There was some discussion of enforcement procedures in connection with water quality standards and responsibility for monitoring and securing compliance with these standards on the part of the Federal agency generating and treating wastes as well as FWPCA and the states concerned. Mr. Clare pointed out that enforcement procedures under the Federal act are really set up for use in contiguous states where interstate pollution can be demonstrated. The steps followed in an enforcement action are: (1) a conference among the interstate agencies establishing the seriousness of the pollution problem, what should be done about it, and when; (2) a hearing which covers about the same general outline as the conference but is more formal and higher legal standing, and (3) reference to a Federal court. The only case in the United States in which an enforcement action has been taken as far as the court is in the case of St. Joseph, Mo., where a court order has been issued and a decision is still pending. It was indicated that monitoring of effluent is logically the responsibility of the agency generating, treating, and discharging the waste, while monitoring streams should be a responsibility of the state and/or the FWPCA. FWPCA could logically be expected to have more responsibility for monitoring interstate waters while the state would have the primary responsibility for monitoring intrastate waters.

Dr. Robert Zeller discussed River Basin Planning Activities, especially flow regulation studies for water quality control. He indicated that there has been an organizational transition in the conduct of the studies from: (1) the years under which flow regulation studies were completed within the framework of the comprehensive planning program; (2) the present situation under which flow regulation studies are not integrated with river basin planning activities.

Dr. Zeller also reported that there has been considerable development in the level of proficiency with which these studies are conducted. At the present time the FWPCA is capable of producing effective reports within limited time periods. To demonstrate this capability, however, FWPCA needs to resolve two major problems: (2) an organizational problem, the solution of which will define the role of flow regulation studies within the regional program of water quality control planning; and (2) a scheduling problem, the solution of which will permit FWPCA to coordinate flow regulation studies with the needs of other Federal and state agencies and to establish levels of priorities on individual projects on the basis of needs and timing.

Dr. Zeller discussed the letters sent to the several districts of the CofE and area engineers of the Bureau of Reclamation by Mr. James L. Agee, Regional Director, FWPCA, under date of December 5. This letter requested assistance of the Corps and the Bureau in the scheduling of project studies through fiscal year 1971. The CofE response to this letter is forthcoming shortly.

The CofE emphasized the importance of an urgent need for monitoring in the watershed before impoundments are actually placed in operation or closed. This, then, will give an opportunity to evaluate changes in water quality brought about by the water resource development. Mr. Ray indicated that FWPCA would make an effort to assist with pre-impoundment and post-impoundment in evaluations and a comparison of the two.

The two agreements between the agencies were discussed in some detail. These are; (1) a Memorandum of Agreement between the Department of the Interior and the Department of Defense dated September 13, 1968, and (2) a Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army dated July 13, 1967.

There was a brief discussion of reports which should be made to the Bureau of the Budget in accordance with Executive Order 11288 for existing installations that need improvement or enlargement. Implementating this requirement in the Executive Order is Bureau of the Budget Circular A-81 which provides that reports should be made in three formats: (1) format A listing of existing projects which need to be improved or enlarged; (2) format B indicates the cost of such improvements and plans for budgeting for this necessary change over a period of time, and (3) format C indicates progress in making improvements in existing installations.

Section 7 of Executive Order 11288 states that the heads of departments, agencies, and establishments should prescribe regulations and conditions, or stipulations, concerning conservation or enhancement of water quality in connection with issuance of permits or in executing contracts or in providing loans or grants. In this connection, there was an indication that the Corps would liked to have discussed in more detail the policies back of issuing comments on applications for dredging permits from the CofE. It is, therefore, planned that Mr. Bryan Johnson, Director of Regulatory Programs, should attend the program review meeting with the Division of the CofE in Portland on January 9.

There was a brief reference to Section 8 in the Executive Order pertaining to wastes from watercraft. FWPCA has prepared to report evaluating this problem and has recommended the development of standards and a program for improving waste treatment in connection with watercraft operation. The Cof E is interested in this matter since it is involved to some extent in the development of plans for marinas, small boat harbors, and other recreational facilities on navigable waters. During the discussion it was indicated that space should be included in the consideration of waste storage and waste handling facilities. There might also be space and facilities for fish-cleaning operations.

Seven CofE dredges are based in the Portland area and operate out of the Portland District of CofE. All of these either have waste treatment facilities at the present time or have plans for waste treatment. Such installations are to be made not later than 1972.

There was general agreement that FWPCA and the CofF staff should get together to discuss new project proposals or revisions in existing projects at the earliest practicable stage. This would permit development of plans including water quality protection features at a stage when plans are being formulated and there is some flexibility.

Mr. Don Nelson, Office of Counsel, discussed the Oil Pollution Act and amendment, and indicated that there is a deficiency in regulatory powers. He referred also to a limit which has been established for control of pollution in the ocean and that this limit extends beyond the three-mile limit to 50 miles offshore. It is covered in the Oil Pollution Act of 1961.

There was some discussion of procedures that should be followed in making site visits and evaluation of existing or proposed waste treatment facilities. Mr. Ossey indicated that the CofE is especially interested in FWPCA's recommendations in this regard. At the present time, FWPCA is preparing more formal reports than in the past on evaluations of adequacy of waste treatment. The report format includes the description of the property, deficiencies noted, plans for improvement with an indication of time schedule, and recommendations for compliance with the Executive Order and applicable standards. This has been a time-consuming process. Mr. Ray indicated that some action would be necessary to speed up the site visit report preparation in order that the Corps might have recommendations more promptly.

SUMMARY OF DISCUSSION
U.S. CORPS OF ENGINEERS, WALLA WALLA DISTRICT
and
FEDERAL WATER POLLUTION CONTROL ADMINISTRATION, NORTHWEST REGION

On August 8, Herbert C. Clare, Federal Activities Coordinator, Federal Water Pollution Control Administration, Northwest Region, met with the Corps of Engineers, Walla Walla District, officials in the Corps' office at the City-County Airport near Walla Walla, Washington.

The following staff personnel from the District were in attendance:

William Van Beek, Mechanical Design Section
W. John Hess, Mechanical Design Section
M. J. Shollenberger, Operations Division
Robert G. Kress, Operations Division
Morris C. Croker, Chief, Mechanical Design Section
M. B. Ames, Design Branch Coordinator
J. E. Cherry, Acquisition Br, Real Estate Div.
Harold Buerstatte, Appraisal Br, Real Estate Div.
Joseph Doetsch, Planning Branch
Clyde J. Jump, Planning Branch
Ferd Swenson, Lower Granite Coordinator
Walter C. Coyle, Completed Projects Coordinator
Alvin C. Ross, John Day Coordinator
Bob Gifford, Planning Branch
John Cook, Planning Branch
Raymond C. Olingher, Planning Branch

The District Engineer, Walla Walla District has designated the following as contacts for coordination of FWPCA/CofE activities in the Walla Walla District:

Walter C. Coyle for completed projects.
Frank Parsons for projects in the investigation or planning stages.
Alvin C. Ross for construction or operation, John Day project.
Leonard C. Tucker for constuction or operation, Little Goose project.
Ferd Swenson for construction or operation, Lower Granite project.
Richard F. Patton for construction or operation, Dworshak project.

It has been the practice of FWPCA to communicate with the District Engineer and let him direct the communication to the appropriate CofE coordinator.

The purpose of this meeting was to undertake an annual review of programs for prevention, control, or abatement of water pollution from existing or proposed Corps of Engineers' facilities or activities in realtion to Executive Order 11288, and to discuss Federal Water Pollution Control Administration (FWPCA) responsibilities in working with the Corps of Engineers (C/E) in these matters. Provisions for such a discussion are established in the Memorandum of Agreement between the Department of the Interior and the Department of Defense, dated 13 September 1968. The purpose of this Agreement is to clarify certain sections and procedures established in the "Guidelines for the Prevention, Control, and Abatement of Water Pollution by Federal Activities" dated July 1967 and issued by the FWPCA. Since the Walla Walla District, C/E does not have military construction within its jurisdiction, there was no discussion of Section 807 of the Military Construction Authorization Act of 1969 (Public Law 90-408).

After a brief summary of the development of the Federal Water Pollution Control legislation and program, the subject of standards was developed in some detail. Mr. Clare pointed out that besides State-Federal Standards on interstate waters, there are, in the states within the boundaries of the Walla Walla District, standards on intrastate waters; standards in the Executive Order 11288; and the Department of the Interior's Anti-Degradation Policy which is, in effect, an effluent standard to be followed by Federal agencies when wastes are discharged to high quality waters.

Mr. Clare pointed out that under Federal law, a standard is made up of both criteria and an implementation plan for these criteria. He also pointed out that the State-Federal Standards on interstate water are subject to review and approval by the Secretary of the Department of the Interior but that state standards on intrastate waters are not subject to such review and approval. He suggested that Federal agencies should comply with the highest of the four standards referred to above.

The standards in the Executive Order require secondary treatment for wastes discharged from Federal facilities and installations. However, where available, the preferred method of waste disposal from such installations is through a municipal system and treatment facilities.

The Anti-Degradation Policy was established to protect and conserve the quality of clean waters which are so abundant in the Pacific Northwest. The Policy means that any use of water should result in a minimum amount of quality degradation. For the most part, this means, for example, that wastes should receive at least secondary treatment or its equivalent. In many instances, wastes will need to be given tertiary treatment to protect water quality or wastes must be kept out of waters entirely.

Mr. Clare also discussed Section 6 of the Executive Order which pertains to review by the Department of the Interior of water resource projects to establish effects of the resource development on water quality. FWPCA reports on these evaluations are made a part of the overall water resource project development reports.

Reference was also made to Section 7 of the Executive Order which pertains to responsibilities of federal agencies in reviewing loans, grants, and contracts practices to determine the extent to which water pollution control standards should be adhered to by permittees, grantees, contractors, etc., with respect to their operations.

It was agreed that the C/E will supply the FWPCA with palns and specifications or description of essential features of new proposed waste treatment facilities and/or changes in existing facilities. FWPCA will coordinate the review of these plans or features with the appropriate state water pollution control agencies and include state comments along with those that FWPCA may have. It was agreed that this might be a better procedure than for the Corps to go to the state agency directly or separate from the FWPCA. This means that the FWPCA will serve as coordinator for review and comments on the proposed waste treatment projects or on changes in existing projects. It was further agreed that these reviews should be made at the earliest possible stage of planning to prevent undue delay and expense in changes which may be advisable.

Mr. Clare indicated that someone from the FWPCA staff would be available at the convenience of the C/E for discussions in connection with planning waste disposal facilities. Personnel for such discussions are available in the Regional Office of the FWPCA.

There was also a discussion of reports which should be made to the Bureau of the Budget in accordance with Executive Order 11288 for existing installations that need improvement or enlargement. Implementing this requirement in the Executive Order is BOB Circular A-81, which provides that reports shall be made in three formats - Format A is a listing of Existing Projects which need to be improved or enlarged - Format B indicates the cost of such improvements and plans for budgeting for the necessary changes over a period of time - Format C indicates progress which has been made during the past year in making necessary improvements to Existing Installations. Mr. Clare offered to have someone from his office assist with these reports at an appropriate time, if such assistance is desired.

The C/E staff were especially interested in solving the problem of wastes from water craft. It was pointed out that much work remains to be done before a completely satisfactory solution to this problem will be available. It was agreed, however, that when marinas and berthing facilities for water craft are being planned, it would be desirable to provide space for an onshore or submerged collapsible waste receiver which could temporarily store wastes from boats that use the marina. Much remains to be accomplished in the way of satisfactory waste treatment facilities that may be placed on board most water craft operating in recreational areas.

Those in attendance then went through the Guidelines for Prevention, Control, and Abatement of Water Pollution by Federal Activities, as established by the FWPCA and the Memorandum of Agreement which serves as the guideline for implementation of the FWPCA Guidelines. These documents which are attached were discussed in some detail.

It was agreed that Program Reviews, such as the one summarized here, would be advisable on at least an annual basis and that reviews and discussions for individual projects should be held early in the planning stage for each such projects.

Attachments:

1. Guidelines for Prevention, Control, and Abatement of Water Pollution by Federal Activities.
2. Memorandum of Agreement between the Department of the Interior and the Department of Defense.
3. Executive Order 11288
4. Anti-Degradation Policy

H.C. Clare
8/19/69

SUMMARY OF DISCUSSION

U.S. FOREST SERVICE, INTERMOUNTAIN REGION
and
FWPCA, NORTHWEST and SOUTHWEST REGIONS

On January 28, 1970, the following Federal Water Pollution Control Administration (FWPCA) representatives met with the Forest Service (FS), Intermountain Region staff in Ogden, Utah:

James McCarty, Deputy Director, SW Region, San Francisco
Robert E. Harp, Operations Branch, Colorado-Bonneville Basins Office, Denver
C. Alvin Yorke, Water Resources Project Evaluations, Colorado River-Bonneville Basins Office, Denver
Lawrence Robinson, California-Nevada Basins Office, Alameda, Calif.
Herbert C. Clare, Federal Activities Coordinator, Northwest Region, Portland
Richard B. Marston, Water Quality Management Specialist, NW Region, Portland

The following Regional Office Staff from the Intermountain Region of the USFS were in attendance:

R-4 FOREST SERVICE

Division of Recreation and Lands

Richard L. Harris - Assistant Regional Forester
W. S. Beckley - Chief, Branch of Recreation Management & Plans

Division of Engineering

Verne L. Despain - Chief, Branch of Civil Engineering
John E. Riley - Civil Engineering (Water Systems)
H. Kent Bingham - Civil Engineering (Sanitary Systems)

Division of Operation

Robert Crowe - Chief, Branch of Administrative Services (Contracting)
Claude M. Bruce - Secretary, Regional Building Committee

Division of Timber Management

David H. Fordyce - Chief, Branch of Timber Sale Administration

Division of Wildlife Management

D.M. Gaufin - Assistant Regional Forester

Division of Range Management

Lester Fluckiger - Branch of Revegetation and Improvements

Division of Soil and Water Management

S.L. Cuskelly - Assistant Regional Forester
E.L. Noble - Chief, Branch of Watershed Management
Rex Naanes - Chief, Branch of Water Inventories & Pollution Control

R-5 FOREST SERVICE

Division of Engineering

Ken L. Page - Water & Sanitation Section Head

The purpose of the meeting was to undertake an annual review of cooperative programs of the FS and the FWPCA in the Intermountain Region.* This review included a discussion of FS and FWPCA activities in relation to Executive Order 11288, including individual and joint responsibilities in prevention, abatement, and control of pollution from existing or proposed FS facilities or activities. Provisions for such discussions are established in the Memorandum of Agreement between the Chief of the FS and the Commissioner of FWPCA, dated July 18, 1967. This Agreement also provides for identification of areas where cooperative and administrative studies, and demonstration or research projects can be mutually beneficial.

The discussions centered around such things as water quality standards and objectives, recreations, logging practices--including road building, sewage disposal, chemicals, sediment, pesticides, and other factors having a significant effect on water quality. There was general agreement that mutually acceptable procedures have been worked out for coordinating agency activities and FWPCA responses to FS requests for advice and assistance on pollution problems.

Regional office organization of the SW and NW Regions of the FWPCA were discussed by Mr. McCarty and Mr. Clare. The respective organizations charts are included as attachments to this Summary.

Mr. McCarty indicated that there are two Basin Offices in the SW Region which have FWPCA jurisdiction in at least part of the FS Intermountain Region. One of these, the Colorado River-Bonneville Basins with Marshall Rainey as Director, is located in Denver. The other, the California-Nevada Basins Office with John Merrell as Director, is located in Alameda, California. Mr. McCarty indicated that contact at the administrative level in the SW Region of FWPCA should be made directly with the Regional Director at San Francisco but that for technical matters it would also be proper to contact the appropriate Basin Director. Contact at the field or operational level might be made with Robert Harp, Operations Branch, Colorado-Bonneville Basins Office, Denver.

* There are two small areas of forest in the Intermountain Region of FS which lie within the Missouri Basin Region of FWPCA. These are in the Bridger and Teton National Forests. The total acreage in the two portions is approximately 40,000 acres. The areas contain undeveloped wilderness with some recreation and use of undeveloped sites.

Mr. Clare reviewed the NW Regional Office setup and indicated that the only organization which might correspond to the SW Region's Basin Office setup would be the Operations Office which has been established by FWPCA at Anchorage to cover the State of Alaska. He suggested that in the NW Region of FWPCA, administrative level contact be made with the Regional Director or Regional Director, Attn: Director, State & Interagency Programs. At the field or operational level contacts may be made with the Federal Activities Coordinator. There are two FWPCA laboratories in the NW Region; one at Corvallis, Oregon, and the other at Fairbanks, Alaska. The basic functions of these Laboratories are threefold: (1) Research in connection with regional problems and problems for which national responsibilities have been assigned. For example, at Corvallis, the Laboratory handles the nation-wide problems of research and study on eutrophication, thermal pollution, and coastal pollution. (2) Pollution control investigations, experiments, field demonstrations, and studies in connection with water quality management. (3) Training relative to the prevention and control of water pollution.

Congress has appropriated $800 million dollars for Construction Grants to municipalities for waste treatment facilities. In this connection, regulations may be changed to provide that grant offers of funds of this appropriation would be made only to help finance secondary treatment facilities. In the past, primary treatment plants have been eligible for grants.

Demonstration grants which are made to governmental agencies or industries for the purpose of demonstrating new waste treatment procedures that will have an area or nationwide application, are receiving considerable attention. State program grants are made to state water pollution control agencies to help finance additional water pollution control activities over and above activities which are financed by state appropriations alone. Planning grants are made by FWPCA to pay a portion of administrative expenses of planning agencies where such agencies provide for adequate representation of appropriate state, interstate, or local interests for developing comprehensive water quality control and abatement planning for a basin.

FWPCA is in the process of developing an inventory of Federal installations and facilities served by water carriage sewerage systems. These inventory data are being compiled with the assistance of the Forest Service and other Federal agencies and will be stored in FWPCA's ADP system, STORET. This will permit retrieval of needed inventory data at any time.

There was some discussion of a proposed Memorandum of Understanding among the Wyoming Dept. of Public Health, the FS, Intermountain Region, and the FWPCA, Southwest Region, for prevention and control of pollution from activities associated with a wood fiber processing plant that would result from a timber sale from National Forest lands located in Southwestern Wyoming and Northern Utah. Supplementary agreements are authorized in the Memorandum of Agreement between the Chief of the FS and the Commissioner of FWPCA. The proposed Memorandum of Understanding incluces specific language in the Green River Pulp sale prospectus and contract which in effect would require that purchasers of National Forest timber not only protect water quality in the logging operation but also to prevent, abate, and control water pollution during processing at the mill. The proposed agreement is still under consideration by the FS and FWPCA.

The FS, Intermountain Region, has transmitted this agreement to its Washington, D.C. office. It rests there at the present time. FWPCA has proposed the agreement to the Regional Solicitor's office and he has responded. FS indicated that the Division of Timber Management would make a follow-up inquiry of the status of the proposal at their Washington, D.C. office. Mr. Fordyce indicated that the FS W.O. seemed to be concerned about the extension of legal liability outside FS lands, that is, at the pulp mill site. The Department of Agriculture General Counsel should probably check this matter with the USDI Solicitor's office in Washington.

FS personnel, Intermountain Region, are generally familiar with the training courses offered by the FWPCA at Corvallis, Ada, and Cincinnati. Mr. Clare encouraged FS consideration of requesting special courses which would be designed to meet specific FS needs, for example, in stream surveys, stream sampling, water quality analyses, and interpretation of results. It was indicated that a special course, including water quality analyses and related hydrology, could be set up at Corvallis for a class of 20 to 25. It will of course be necessary to provide adequate lead time for arranging for availability of appropriate instructors for such a course.

Mr. Clare discussed the subject of standards in some detail. He pointed out that besides the State-Federal standards on interstate waters, there are also state standards on intrastate waters. In addition, Federal Agencies are expected to comply with Executive Order 11288 and the Anti-degradation standard. The latter is an effluent standard applying where waste receiving waters are of high quality.

Under the FWPC Act, a standard is made up of both criteria and an implementation plan for these criteria. State-Federal standards on interstate waters are subject to review and approval by the Secretary of the Department of the Interior, but state standards on intrastate waters are not subject to such review and approval.

Standards in the Executive Order require, among other things, secondary treatment for wastes discharged from Federal facilities and installations. (More and more frequently the term "85% removal" is appearing in discussions of secondary treatment.) Frequently tertiary or even "complete" treatment is needed. (An example of "complete" treatment could be a lagoon designed for zero overflow - one that balances evaporation and percolation against inflow and rainfall.)

Standards in the Executive Order also state that the preferred method of disposal of wastes from Federal installations is through a municipal system and treatment facility. Treatment of wastes by septic tanks with subsurface disposal is generally accepted as being equivalent to secondary treatment provided such installations are properly located, designed, and maintained.

The Anti-degradation standard was established to protect and conserve the quality of clean waters. Such waters are abundant in the Intermountain Region. The standard means that any activity or use of water or generation of a waste should result in a minimum degree of quality degradation. For the most part, this means, for example, that wastes should receive at least secondary treatment, or its equivalent. In many instances it may be necessary to give wastes tertiary treatment to protect water quality or to entirely prevent the direct discharge of wastes. Federal agencies are expected to comply with the highest of the four standards referred to above.

There was a brief reference to the Executive Order 11296 pertaining to "Evaluation of Flood Hazards in Locating Federally Owned, or Financed Buildings, Roads, and other Facilities, and in Disposing of Federal Lands and Properties." The Water Resources Council has proposed "Flood Hazard Evaluation Guidelines for Federal Executive Agencies." A draft of these proposed Guidelines dated September 19, 1969, is presently under review by FS and other agencies. The Corps of Engineers, under its Flood Plain Management Services Unit, is able to provide technical assistance and flood-hazard evaluation anywhere in the Intermountain Region. The Corps makes every effort to respond without delay to requests for advice in this connection so that planning for any project can proceed with complete awareness of flood potential. The Corps is in a position to recommend appropriate flood-proofing measures and works with the Flood Insurance Administration in helping establish rates for flood insurance.

This work is done by the Corps under the provisions of Executive Order 11296 without reimbursement cost from the agency requesting advice in these matters. It supplies not only data but an interpretation of their application in specific instances. For assistance in evaluating flood-hazard potential, agencies are to contact the appropriate CE District Engineer.

Although there was no detailed discussion of enforcement procedures, program reviews in other FS regions have indicated a general interest in this matter. Enforcement procedures under the FWPC Act are really set up for use in contiguous states where interstate pollution can be demonstrated. Pollution of interstate waters where there is no interstate pollution cannot be abated by action initiated by the FWPCA. Federal enforcement may be initiated when requested by the Governor of the state in which the pollution occurs.

The steps followed in an enforcement action are: (1) A conference among the interstate agencies to establish the seriousness of the pollution problem, to determine what should be done about it, and to set a schedule or time table; (2) A hearing which covers about the same general outline as the conference but is more formal and at a higher legal standing; and (3) Reference to a Federal court. The only case in the United States in which an enforcement action has been taken as far as the court is in the case of St. Joseph, Missouri, where a court order is outstanding and a decision is still pending.

Where delays in time tables are occurring and no efforts are being made to comply, the State is given the first opportunity to seek enforcement action.

Where it is determined that more direct action is necessary, concurrent Federal enforcement proceedings may be instituted or a revision of implementation schedules in the standards may be made if they are unrealistic.

Should Federal enforcement action be warranted, the Department may serve notice to the violators in accordance with Section 10 (c)(5) of the Act. The violators and other interested parties must be given at least 180 days notice before court action can be taken. Direct enforcement action is limited to cases where the effects of pollution are interstate or, in the case of enforcement conference procedures, economic injury has resulted due to a failure in being able to market shellfish in interstate commerce.

There was considerable discussion of the "White Cloud" Peaks situation where private industry proposed that this scenic attraction be developed for mineral recovery under the 1872 Mining Laws. The area lies in the National Forest at the headwaters of tributaries to the Salmon and Snake Rivers. Two National Forests are involved; the Challis and the Sawtooth.

The Idaho State Dept. of Health and the USFS, together and individually, have done some water quality reconnaissance work in the White Cloud area. Although the Idaho Dept. of Health feels that they may have adequate background data, the FS indicated they would like to have additional data and reinforcement in establishing and operating monitoring stations. FS officials expressed an interest in assistance and participation by FWPCA. Mr. Clare indicated that since the waters under discussion in the White Cloud area are intrastate, FWPCA could become active in water quality work, either by a request from the state with concurrence of the FS or a request by the FS with concurrence by the state. FS officials felt that a carefully worded request, addressed to FWPCA, could be cleared with the state, and there were indications that the FS Regional Office would proceed with preparation of such a request.

In this connection, FS has some "bench mark" information on about 70 lakes in the area. The FS will consider the need for assistance from FWPCA and coordination aspects of such a proposal with other FS research and administrative programs contemplated and proceed accordingly, after first obtaining concurrence of appropriate state agencies.

There was some discussion of standards which might be effective in the prevention of pollution during mining developments in the White Cloud area. Since waters in this area are of high quality, it is the feeling of FWPCA that the Anti-degradation standard or philosophy can and should be applied. It is understood that the State of Idaho has such a standard although it may be designated as something besides "anti-degradation". At the same time, it was suggested that the FS might adopt an "anti-degradation" objective for its direct application to waters in the area.

Since the FS cannot deny access to mining developments it is anxious to exercise as much control as possible on access and operations in the interest of protection of water quality and other resource values in the area.

There was a brief discussion of restoration of the fisheries in Panther Creek, a tributary to the Salmon River below Salmon City, Idaho. The Panther Creek Watershed is in the Salmon National Forest. Some mining has been carried on in the basin since the turn of the century. Most of the mining was done on Blackbird Creek, a tributary to Panther Creek with its confluence approximately 21 miles from the Salmon River. The critical minerals from the non-operating mine and tailings dumps have been designated by biologists as copper and iron. Limits for these ions have been suggested as 0.02 ppm for copper and 0.3 for iron. It was suggested that these limits or criteria be established basin-wide; that is, for Panther Creek, Blackbird Creek, as well as other tributaries of Panther Creek. The FS will keep FWPCA currently advised of progress on this problem and seek their assistance where technical or enforcement help is indicated.

It was suggested that it might be easier for the mining company to meet these criteria if the mine were actually operating and the treatment process were incorporated in the mineral recovery process. However, it is understood that the mining company feels that it can reduce minerals discharged to Blackbird Creek by means of practical treatment which may be instituted in the near future. The Forest Supervisor is presently working on a draft of a letter to the mining company proposing the precise standards or criteria referred to above. The letter will also ask the mining company to implement these standards or criteria and it is then hoped that the Idaho Dept. of Health will officially adopt them as part of their intrastate water quality standards. Thus, enforcement, if any is needed, would be under state law.

A somewhat detailed discussion of sewage disposal systems for domestic wastes followed. This discussion was led by Mr. Despain with participation by his staff engineers, Mr. Riley (Water Systems) and Mr. Bingham (Sanitary Systems). The Engineering Division personnel expressed a desire for the latest information on sanitary systems and subsequent to the discussion FWPCA has sent copies of design and other information as follows:

1. A copy of the Chapter on Sewage Disposal from the USPH's Publication "Environmental Health Practices in Recreational Areas."
2. "Criteria for Design and Utilization of Domestic Sewage Lagoons or Stabilization Ponds," by the Oregon Dept. of Environmental Quality.
3. "Wastewater Stabilization Ponds 'Sewage Lagoons' Operation and Maintenance Manual" by the Montana State Dept. of Health.

These documents contain excellent information and latest recommendations and procedures for design, operation, and maintenance of waste treatment facilities at installations such as those operated by the FS.

FS use of package plants, providing extended aeration and contact stabilization processes, is discouraged because of the intermittent load from many installations and because of difficulties and expense of operation and maintenance. For the most part, lagoons and septic tanks with subsurface disposal systems are most satisfactory for FS installations where water carriage systems are used. Septic tanks and drainfield installations near streams or lakes should be discouraged.

The Engineering Division indicated that they insist the contractors install poured-in-place septic tanks in accordance with plans and specifications and resist recommendations by contractors that pre-fabricated, patented, septic tanks be used instead.

The FS indicated it might be advisable for FWPCA to participate in a field trip along with FS and state officials to observe operation of sewage lagoon installations. The Engineering Division indicated that problems are encountered and that these problems may stem from multiple-cell designs, as well as from excess percolation, and evaporation. These factors result in shallow sewage depths in lagoon cells. FWPCA offered to participate in such a field trip if the FS feels it would be helpful and will suggest a time and an itinerary for such a reconnaissance.

Disposal of wastes from facilities and installations in other than water carriage systems is basically a solid waste problem. Therefore, responsibilities for Federal consultations and advice rest with the U. S. Public Health Service, not FWPCA. The use of plastic bags for collection of garbage, refuse, and human wastes aggravates the disposal problem because the plastic bags are resistant to decomposition and foul pumps and other machinery and equipment, in sewage waste treatment plants.

It was suggested during this discussion that the most practical disposal method for these wastes would be in a separate sanitary land fill (with proper location and daily compaction and covering) or in a "slit trench" carefully located and with provision for daily coverage.

The FS is concerned where compliance with state standards for sanitary systems (lagoons) requires overdesign at recreation areas that are used only intermittently, during some seasons of the year. FWPCA assistance is needed to contact the state agencies and attain relief where this situation exists. Mr. Naanes, FS, will take the lead in arranging for a meeting of FS and FWPCA to work out the details of the approach to correct this problem.

Mr. Harp discussed procedures followed in the review of plans and specifications or essential features for FS waste disposal facilities or improvements. He indicated that the preferred procedure in the interest of best coordination is for FS to use FWPCA as liaison with the state. This applies to Sections 2 and 3 projects and not necessarily to Sections 6 and 7 projects as outlined in Executive Order 11288. The FS officials agreed with this procedure as being in conformance with the Guidelines for the prevention and control of pollution from Federal installations, and with the Memorandum of Agreement by FWPCA and FS.

Mr. Gaufin indicated that the Region presently has three fishery biologists and seven wildlife biologists and that the objective is to employ more as positions and funds become available in order that there may be one biologist in each National Forest. At the present time, because of limitations, the objective is to have one biologist to handle two National Forests. These biologists have considerable responsibility in the technical aspects of determining water quality and in application of the Anti-degradation principle. There was some discussion at this point about the possible need for a special course for Forest Service biologists and hydrologists, possibly from several regions, for training in water quality matters such as stream condition surveys, sampling, analyses, and interpretation of results. Mr. Gaufin indicated that he thought the biologists would be interested especially in establishment of guidelines on stream survey procedures, as well as up-to-date information on indicator organisms and their relation to hydrology.

Mr. McCarty discussed FWPCA fish kill reporting and indicated that the FS could be of great assistance in making prompt and meaningful reports on fish kills. The minimum size of the kill to be reported is 100 game fish or 1000 non-game fish. Kills smaller than this need not be reported. He suggested that the FWPCA Regional Office be alerted by telephone of fish-kill occurrences or incidents and that if it seems appropriate, the FWPCA Regional Offices could send out a response team to make an investigation and evaluation of the kill and its causes and an indication of measures which might be taken to prevent recurrence. The FS indicated that they were interested in reporting to FWPCA and that they would also like to keep the channels open for making reports to appropriate state agencies.

Mr. Fordyce indicated that timber sale contracts are giving more attention to safeguards for prevention of erosion from logging operation, road building, and activity in stream channels or stream courses. Logging practices are also improving. There are four skyline logging operations now in progress in the Intermountain Region. Balloon logging also seems to have a place in major logging developments and plans for balloon logging trials are under way on the Boise National Forest.

Dr. Marston participated in discussions of applications of pesticides for insect control and Mr. Fordyce indicated that some of this control is through topical application of pesticides and that other operations are by a broadcast procedure. Dr. Marston inquired about reforestation practices and Mr. Fordyce indicated that clear-cut lodgepole pine areas reforest through natural regeneration, if sites have been properly prepared and an adequate seed supply is available. This preparation includes scarification of the areas and clear-cutting in small units. He emphasized the importance of careful preparation of the site.

Forest fertilization is receiving attention in the Intermountain Region only on an experimental basis at the nursery location where seedlings are developed.

Dr. Marston reported briefly on the Logging Waste Guide which he is preparing and indicated that copies should be available for distribution in the near future. He acknowledged material assistance from the FS in preparation of the Logging Waste Guide and indicated that it is addressed more to such agencies as the Bureau of Land Management and Bureau of Indian Affairs than it is to the FS.

Since there has been extensive placer mining in forest areas of the Intermountain Region by dredging operations, Mr. Clare reported briefly on an operation in the Elk City area of the Nez Perce National Forest where extensive use of dredge piles of gravel and stone was made in the program of road construction and improvement within the Forest. The rock in these areas is crushed in a portable crusher and used as road base and surfacing material. Areas from which this rock and gravel have been removed are being restored and it is expected that within a few years they will be covered with vegetation and conifers. The renovated areas have excellent potential for campground and recreational use. It is expected that much of the area which is presently covered with piles and windrows of rock and gravel will ultimately be renovated in this manner.

Mr. Clare referred to a "Summary Report of the Northwest Watershed Project" a U.S. Public Health Service document which reports the influence on water quality from different population (recreation) levels on three watersheds. The report is dated November 1969.

Mr. Fluckiger reported further on the use of pesticides in the National Forests and indicated that their use is checked and cleared with the Federal Committee for Pesticide Control. He also stated that the use of 1080 bait on open range areas was carried out under carefully controlled conditions by the U.S. Fish & Wildlife Service. He reported also that 2, 4, 5, T is not to be used this year, but there is some use of 2, 4, D for control of certain patches of vegetation. In this use, buffer zones are left along streams and other bodies of water.

Mr. Fluckiger also reported that the FS Region's range revegetation program amounts to about 36,000 acres per year plus improvement through management systems. He also reported that the FS plans to close some sheep driveways since trucking is now practical for transportation of sheep into and through Forest Service areas, and that improved management of livestock ranges has done a great deal for sediment control.

Mr. Noble discussed the FS Barometer Watershed projects as well as reviews of reservoir project proposals by the Corps of Engineers, U.S. Bureau of Reclamation, and the Soil Conservation Service, Public Law 566 projects. The probable effects on water quality that might be caused by reservoirs proposed to be built on National Forest lands should in each case be reviewed by FWPCA. Mr. Noble indicated that the FS plans to continue data gathering operations in the Forests, that the Barometer Watershed projects cover large watershed areas, 45,000 acres or more, and that the purposes of the projects are to characterize the hydrology and the effects of multiple-use management practices on the watershed in order to be able to interpolate and predict the effects of proposed management practices in other, similar, hydrologic provinces. This will permit the writing of management prescriptions so as to obtain full coordination of uses of the various resources of such provinces or areas before they are fully developed. This will make it possible to obtain more fully the desired results.

He also discussed the studies being carried out on the Payette River in Idaho and referred to the Silver Creek Watershed Research Project. Some work is also being done on the South Fork of the Salmon River. Mr. Cuskelly is the Chairman of the Batholith Steering Committee which provides overall coordination for studies being conducted in the Idaho Batholith and is giving guidance to water quality as well as other studies.

There was a discussion of the advantage of multiple outlets in connection with operation of multiple-purpose water storage projects. Multiple outlets allow for considerable flexibility in controlling water quality from waters released through dam structures. This flexibility is in relation to controlling temperature, dissolved oxygen, and other quality parameters. FWPCA indicated that encouragement is given to installation of multiple outlets on water resource projects.

SUMMARY OF DISCUSSION

U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF INDIAN AFFAIRS
and
FWPCA, NORTHWEST REGION

On January 21, five offices of the Bureau of Indian Affairs (BIA) met with the following from the Federal Water Pollution Control Administration (FWPCA), Northwest Region:

Hurlon C. Ray, Director, State & Interagency Programs
Herbert C. Clare, Federal Activities Coordinator
William A. Newell, Sanitary Engineer, Federal Activities Branch
Carl T. Nadler, Sanitary Engineer, Federal Activities Branch
Herndon S. Hill, Sanitary Engineer, Federal Activities Branch
Dr. Richard B. Marston, Water Quality Management Specialist, Federal Activities Branch
Carroll E. Veirs, Regional Specialist on Land Management Practices
Roy Ellerman, Sanitary Engineer, Construction Grants
Stanley Brust, Federal Activities, Alaska
Oscar E. Dickason, Chief of Operations, Alaska

The meeting was held in the FWPCA conference room in Portland.

The purpose of the meeting was to undertake an annual review of programs for the prevention, control, and abatement of water pollution from existing or proposed BIA installations, facilities, or activities in the Northwest Region in relation to Executive Order 11288, and to discuss coordination of FWPCA responsibilities with BIA in these matters. Also scheduled for discussion were the "Guidelines for The Prevention, Control, and Abatement of Water Pollution by Federal Activities" dated July 1967 and issued by FWPCA.

The following BIA personnel participated in the review:

BILLINGS AREA OFFICE:

Jack Thornburgh

JUNEAU AREA OFFICE:

Fred Sloan, Area Plant Manager

PORTLAND AREA OFFICE:

A. W. Galbraith	Assistant Area Director
Jack E. Stenberg	Area General Engineer
Lloyd W. Rogers, Jr.	Soil Conservationist
Ronald E. Miller	Land Use Planner
Remo Minato	Branch of Roads
Jack L. Bilderback	Highway Engineer
Glenn E. Smith	Area Road Engineer
Tom Stewart	Engineering Technician, P.M.

Victor Lundeen	Area Realty Officer
Jose G. Garcia	Realty Specialist
Henry Bushman	Housing
Kenneth Hadley	Area Forester

DIVISION OF PLANT DESIGN AND CONSTRUCTION--ALBUQUERQUE

Wilbur Haugen	Chief Engineer
Bob Buchanan	Chief, Sanitary Engineering Section

BRANCH OF PLANT MANAGEMENT--LITTLETON

Donald L. Olson	Chief, Sanitary Unit
George C. Quist, Jr.	Chief, Field Services Unit

It is understood that the BIA has designated George C. Quist, Jr., to coordinate air and water pollution project activities with FWPCA for existing facilities. For new BIA construction projects, Robert D. Buchanan will coordinate these activities with FWPCA. Mr. Ray indicated that contacts at the administrative level should be made with the Regional Director or with the Regional Director, Attention: Director, State & Interagency Programs, and at the field level with the Regional Federal Activities Coordinator, Herbert C. Clare. In Alaska, primary contact may be made with Oscar E. Dickason, FWPCA, Chief of Operations, Attention: Stanley Brust, Federal Activities, Anchorage, Alaska.

Mr. Ray reviewed some of the recent developments in Water Pollution Control Administration, especially recent legislation and its effects on our mutual programs as well as proposed legislation which could have considerable influence on these operations. He also reviewed the Headquarters and Regional Office organization of FWPCA (see attachment to this summary in Regional Office organization) and referred to the two laboratories within the Region - one at Corvallis, Oregon, and the other at Fairbanks, Alaska. The basic functions of these Laboratories are threefold:

1. Research in connection with Regional problems and problems for which national responsibilities have been assigned. For example, at Corvallis, the Laboratory handles the nationwide problems of research and study on eutrophication, thermal pollution, and coastal pollution.

2. Pollution control investigations, experiments, field demonstrations, and studies in connection with water quality management.

3. Training relative to the prevention and control of water pollution.

Congress has appropriated $800 million for construction grants to municipalities for waste treatment facilities. In this connection, Mr. Ray indicated that regulations may be changed to provide that grant offers of funds from this appropriation would be made only to help finance secondary treatment facilities. In the past, primary treatment plants have been eligible for grants.

Mr. Ray commented on demonstration grants which are made to governmental agencies or industries for the purpose of demonstrating new waste treatment procedures that will have area or nationwide application. There was also a reference to state program grants which are made to state water pollution control agencies to help finance additional water pollution control activities over and above activities which are financed by state appropriations. Planning grants are made to pay for administrative expenses of planning agencies where such agencies provide for adequate representation of appropriate state, interstate, or local interests for developing comprehensive water quality control and abatement planning for a basin.

Mr. Ray discussed the report prepared by the Department of Interior agencies in Oregon on Land Management Practices. This report was developed by some ten Interior Agencies in Oregon with recommendations for improving land management practices within Interior. The report has been transmitted to Headquarters for clearance at the Secretary's level with the possibility of implementing at least some of the recommendations nationwide.

Mr. Ray also mentioned the Logging Guide which has been developed by FWPCA. This Guide is designed to suggest improvements in Logging Practices in the interests of protecting water quality. He indicated that this means some changes in practices which will cost money but will result in conservation or enhancement of water quality.

Mr. Clare reviewed provisions of Executive Order 11288 and referred to the Guidelines which have been set up to implement the Executive Order for the prevention, control, and abatement of water pollution by Federal installations or activities. He summarized the policy statement of the Executive Order which indicates that Federal agencies should take the lead and set the example in water pollution control, prevention, or abatement.

There was detailed discussion of Section 2 and 3 of the Executive Order pertaining to waste treatment facilities for new and existing Federal facilities and buildings respectively. Under these Sections, responsibility for design, construction, and operation of treatment works rests with BIA. However, the Executive Order indicates that FWPCA should review these proposed designs and advise the BIA as to effectiveness and adequacy of proposed treatment and improvement. In this connection, FWPCA considers that compliance with state and local criteria is necessary.

There was a brief discussion of reports which should be made to the Bureau of the Budget in accordance with Section 3 of Executive Order 11288 for existing installations that need improvement or enlargement. Implementing this requirement in the Executive Order is Bureau of the Budget Circular A-81 which provides that reports should be made in three formats: (1) format A listing of existing projects which need to be improved or enlarged; (2) format B indicates the cost of such improvements and plans for budgeting for this necessary change over a period of time, and (3) format C indicates progress in making improvements in existing installations.

Since FWPCA is responsible for advising BIA on new installations or improvement of existing installations, it has been the feeling of FWPCA, and is indicated in the Guidelines for implementation of the Executive Order, that the primary responsibility for evaluating adequacy of proposed design rests with FWPCA and not with the state agency in which the installation is located. This is especially true for installations which are located on interstate waters and in which at least two states have an interest in adequacy evaluations.

Reviews of projects under Sections 2 and 3 of the Executive Order by FWPCA are based on examination of plans and specifications or studies of essential features provided by BIA. Reviews of such plans and specifications or essential features and consolidated comments are returned to BIA reflecting the review comments by the state water pollution control agency and FWPCA. It is in the interest of best coordination to consider all standards and criteria and FWPCA is in an excellent position to do this. The BIA feels, however, that direct contact between BIA and state agencies should still permit FWPCA to consider all standards and criteria in reviewing proposed facilities.

FWPCA is in process of developing an inventory of Federal installations and facilities served by water carriage sewerage systems. These inventory data are being compiled with the assistance of BIA and other Federal agencies and will be stored in FWPCA's ADP system, STORET. This will permit retrieval of needed inventory data at any time.

Mr. Clare discussed the subject of Standards in some detail and pointed out that besides State-Federal standards on interstate waters, there are also State standards on intrastate waters. In addition, there are standards in Executive Order 11288 and the Anti-degradation standard which is an effluent standard applying to high quality waters.

Standards in the Executive Order require, among other things, secondary treatment for wastes discharged from Federal facilities and installations. (More and more frequently the term "at least 85% removal" is appearing in discussions of secondary treatment.) Frequently tertiary or even "complete" treatment is needed.

The standards in the Executive Order also state that the preferred method of disposal of wastes from Federal installations is through a municipal system and treatment facilities. The treatment of waste by septic tank with effluent disposal via a tiled absorption field is generally accepted as being equivalent to secondary treatment for small installations when properly and adequately designed and maintained.

The Anti-degradation standard was established to protect and conserve the quality of clean waters which are so abundant in the Northwest. The standard means that any activity or use of water or generation of a waste should result in a minimum degree of quality degradation. For the most part, this means, for example, that wastes should receive at least secondary treatment or its equivalent. In many instances it may be necessary to give wastes tertiary treatment to protect water quality or to prevent the direct discharge of wastes entirely. Mr. Clare indicated that Federal agencies should comply with the highest of the four standards referred to above.

There was a very brief discussion of the application of Executive Order 11296 pertaining to "Evaluation of Flood Hazard in Locating Federally Owned or Financed Buildings, Roads, and Other Facilities, and in Disposing of Federal Lands and Properties." The Water Resources Council has proposed "Flood Hazard Evaluation Guidelines for Federal Executive Agencies." This draft is dated September 19, 1969, and is presently under review.

Although this Executive Order was not discussed in detail at this meeting, it seemed to be generally understood by BIA representatives in attendance. There are indications that to fully comply with Executive Order 11296, extensive efforts toward data accumulation and flood hazard evaluation must be combined with interagency cooperation at all levels of Government. Flood damage can be prevented or drastically reduced by a realistic approach to wise use of available land and flood-proofing, where necessary. The Corps of Engineers(CE) under its Flood Plain Management Services Unit, is able to provide technical assistance and flood-hazard evaluation anywhere in the Northwest Region, including Alaska. Every effort is made to respond without delay to requests made to the CE so that planning for any project can proceed with complete awareness of flood potential. The Corps is in a position to recommend appropriate flood-proofing measures and it works with the Flood Insurance Administration in helping establish rates for flood insurance. This work is done by the Corps under the provisions of Executive Order 11296 without reimbursement costs from the agency requesting advice in these matters. For individuals or industries, the Corps supplies copies of available data and information. For Governmental agencies, it supplies not only data but an interpretation of their application in specific instances. For assistance in evaluating flood-hazard potential, BIA offices are aware of the fact that they should contact the appropriate CE District Engineer.

Mr. Ray and Mr. Clare discussed enforcement procedures under the Federal Water Pollution Control Act. They indicated that such procedures are set up for better operation in the contiguous states where interstate pollution can be demonstrated. The steps in an enforcement action are: (1) A conference among the interstate agencies establishing the seriousness of the pollution problem, what should be done about it, and when, by establishing a schedule or timetable; (2) A hearing which covers about the same general outline as the conference but is more formal and at a higher legal standing; and (3) Reference to a Federal court. The only case in the United States in which an enforcement action has been taken as far as the court is in the case of St. Joseph, Missouri, where a court order has been issued and a decision is pending.

Where delays of timetables are occurring and no efforts are made to comply, the State if given the first opportunity to seek enforcement action. Where it is determined that more direct action is necessary, Federal enforcement may be initiated or, if the implementation schedules of the standards are unrealistic, they may be revised.

Should Federal enforcement action be warranted, the Department may serve notice to the violators (in accordance with Section 10 (c) (5) of the Act. The violators and other interested parties must be advised at least 180 days before court action can be taken). Direct enforcement action is limited to cases where the effects of pollution are interstate or, with the enforcement conference procedures, economic injury has resulted from the failure to market shellfish in interstate commerce.

There was a brief discussion of Section 7 of Executive Order 11288 which states that the heads of departments, agencies, and establishments should prescribe regulations and conditions or stipulations concerning conservation or enhancement of water quality in connection with execution of contracts or in providing loans or grants. In this connection, Mr. Ray again mentioned the Department of Interior's Oregon Pilot Survey which was designed to develop recommendations and procedures to be followed by Interior Agencies in protection of water quality through proper land management procedures and practices. He also referred to a national seminar on Sedimentation which is to be conducted at the Northwest Water Quality Laboratory at Corvallis this summer.

The BIA representatives indicated that they do have water resources projects, including irrigation. They also have timber sale contracts, logging contracts, as well as road building functions. There was a brief discussion of procedures followed in the interests of protection of water quality in these operations such as leaving buffer strips, methods of logging, and location of roads. It is more important that pollution prevention features be built into such activities than to try to correct deficiencies resulting from faulty specifications or standards.

There was a brief reference to Section 8 of Executive Order pertaining to wastes from watercraft including oil from motor exhausts. FWPCA has prepared a report evaluating the overall problem of waste from watercraft and has recommended the development of standards in a program for improving waste treatment in connection with water craft operation. The BIA is interested in this matter since it is involved to some extent in recreational use of storage reservoirs.

There was considerable discussion of the need for and present status of a Memorandum of Understanding between the BIA and FWPCA. In 1967 a Memorandum of Agreement had been developed involving the BIA and the FWPCA and the Public Health Service (PHS). It was indicated that this Memorandum of Agreement had been approved or signed by all agencies except FWPCA. BIA felt that an agreement of some kind would be very helpful in establishing areas of operation and procedures to be followed in coordination of activities in the three agencies. At the present time, BIA indicated that PHS designs and constructs projects for water and sewerage systems for on-reservation Indian communities sometimes containing Indian Agencies but that FWPCA does not have an opportunity to make such a review. It appears that these projects might come under Sections 2 and 7 in Executive Order 11288. Both of these Sections indicate that advice of Interior (FWPCA) should be secured by the agency developing the projects. At the present time, such reviews and advice are not given by FWPCA.

The State of Alaska has on occasion approved the use of natural lakes or bodies of water as lagoons for waste treatment. If these are intrastate waters, such decisions are a responsibility of the State and not FWPCA. The basic question FWPCA must answer, if such waters are used for treatment of wastes from a Federal installation, is whether secondary treatment is provided.

It was also pointed out that on occasions PHS issues statements or certification to the effect that certain projects designed by them are in compliance with Executive Order 11288.

BIA indicated that there is an apparent need for consideration of development of community systems; for example, systems which will serve such units as schools, BIA offices, businesses, and others in the area. In such instances it has not been possible to have planning, budgeting, and appropriating procedures coordinated time-wise. In this instance, it would seem that one planning agency would be necessary to accomplish the purpose expressed.

There is an obvious problem of coordination between the various agencies that are involved in the projects; for example, FWPCA grants to Indian tribes or authorized Tribal organizations, Economic Development Administration, Housing and Urban Development, U.S. Department of Agriculture, U.S. Public Health Service, and possibly others.

There was a group discussion of the problem of appropriate waste treatment and the Mt. Edgecomb-Sitka complex. It is apparent that the incorporated municipality of Sitka, although it has an interest in a joint project, does not have funds to support its share. Mr. Sloan was especially interested in source of Federal funds to help Sitka and in development of a system which might be used by the BIA as well as the PHS installation on Mt. Edgecomb. Mr. Roy Ellerman of the Construction Grants office, FWPCA, discussed the matter of grants and supplied those in attendance with forms which may be used by a municipality in applying for Federal assistance for sewers and/or sewage treatment facilities. Mr. Sloan indicated that he would see that the city of Sitka receives some of the 101 Forms which may be used for this purpose.

There was general agreement that our respective Headquarters officials should give consideration to the development of a satisfactory procedure which could be followed to avoid duplication of effort and confusion in those areas where two or more Federal Agencies are involved. Examples are PHS handling of 121 projects without consulting FWPCA or the funding of several separate Federal projects in one area instead of developing one single large project to serve all the various complexes in that area.

Attachments:

1. Executive Order 11288
2. Guidelines for Prevention, Control, and Abatement of Water Pollution by Federal activities.
3. The Anti-degradation standard.
4. Organizational Chart.

BIA and FWPCA Program Review

REGISTRATION LIST

Name	Title	Address
Hurlon C. Ray	Director, SIA	FWPCA, Portland
H. C. Clare	Fed. Act. Coordinator	" "
W. A. Newell	San. Engr., FAC	" "
Jack Thornburgh	Civil Eng. BIA	Billings, Montana
Donald L. Olson	Chief, Util. Unit	BIA, Littleton
George C. Quist, Jr.	Chief, Field Serv. Unit	" "
Lloyd W. Rogers, Jr.	Soil Conservationist	" Portland
C. E. Veirs	FWPCA	Portland
Ronald E. Miller	Land Use Planner	BIA, Portland
Remo Minato	Branch of Roads	" "
Jack L. Bilderback	Highway Engineer	" "
Glenn E. Smith	Area Road Eng.	" "
Fred Sioan	Area Plant Manager	BIA, Juneau
Bob Buchanan	Chief, Sanitary Engr. Sec.	PD&C, BIA, Albuquerque
Wilbur Haugen	Chief Engineer	" " "
Tom Stewart	Eng. Tech. P.M.	BIA, Portland
A. W. Galbraith	Asst. Area Director	" "
Jack E. Stenberg	Area Gen. Engr.	" "
Carl Nadler	San. Engr., FAC	FWPCA, Portland
Oscar E. Dickason	Chief of Operations	FWPCA, Anchorage
Stanley Brust	Fed. ACtivities Sec.	" "
Victor Lundeen	Area Realty Officer	BIA, Portland
Jose G. Garcia	Realty Specialist	" "
Henry Bushman	Housing	" "
H. S. Hill	San. Engineer	FWPCA, Portland
Richard B. Marston	Water Qual. Mgmt. Spec.	" "
Kenneth Hadley	Area Forester	BIA, Portland

SUMMARY OF DISCUSSION

U.S. CORPS OF ENGINEERS, NORTH PACIFIC DIVISION
and
FWPCA, NORTHWEST REGION

On January 9, 1970, the Corps of Engineers (CE), North Pacific Division, met with the following from the Federal Water Pollution Control Administration, (FWPCA), Northwest Region: Hurlon C. Ray, Director, State and Interagency Programs; Bryan M. Johnson, Director, Regulatory Programs; Herbert C. Clare, Federal Activities Coordinator, William A. Newell and Carl T. Nadler, Sanitary Engineers, Federal Activities Coordination Branch. The meeting was held in the CE's office in Portland, Oregon.

The purpose of the meeting was to undertake an annual review of programs for the prevention, control, and abatement of water pollution from existing or proposed CE installations, facilities, or activities in the North Pacific Division, in relation to Executive Order 11288 and to discuss coordination of FWPCA responsibilities with the CE in these matters. Also scheduled for discussion were the "Guidelines for the Prevention, Control, and Abatement of Water Pollution by Federal Activities" dated July 1967 and issued by FWPCA; the Memorandum of Agreement between the Department of the Interior and the Department of Defense dated September 13, 1968; and the Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army signed July 13, 1967.

The following CE personnel participated in the review:

Brigadier General Roy S. Kelley, Division Engineer, NPD, CE
Gordon H. Fernald, Jr., Chief, Engineering Division, NPD
Delbert Olson, Chief, Planning Division, NPD
Donald R. Cox, Chief, Operations Division, NPD
D. W. Love, Chief, Construction Division, NPD
Robert W. Baunach, Engineering Division, NPD
Roy G. Sandwick, Operations Division, NPD
Darwin Anderson, Division Counsel, NPD
John W. Daugherty, Chief, Technical Engineering Branch, NPD
D. W. Nordhill, Planning Division, NPD
David M. Rockwood, Water Control Branch, Engineering Division, NPD
Charles E. Stockman, Technical Engineering Branch, NPD
Peter B. Boyer, Water Control Branch, Engineering Division, NPD
W. A. Running, Construction Division, NPD
Melvin J. Setvin, HEDB, NPD
David G. Nelson, Office of Counsel, NPD
Jerry R. Joy, HEDB, NPD

Under date of December 2, 1966, the CE, North Pacific Division, indicated that overall coordination of FWPCA-CE activities in the Division should be made with Mr. Charles E. Stockman for facility plans, and Mr. Raymond G. Sandwick for pollution problems concerning navigable waters.

At the meeting on January 9, General Kelley indicated that he would give further consideration to the matter of naming additional coordinators to work with FWPCA in the future. In the meantime, FWPCA will communicate with the Division Engineer and he, in turn, will direct communcations to the appropriate CE staff officers. Mr. Ray indicated that administration level contacts by CE with FWPCA should be made with the Regional Director, FWPCA, or with the Regional Director, Attention: Director, State and Interagency Programs. He further indicated that operational or field level contacts by the CE should be with FWPCA's Federal Activities Coordinator, Herbert C. Clare.

The following items were on the agenda for this program review meeting:

1. A discussion of Executive Order 11288, its interpretation and application.
2. Water quality standards.
3. Enforcement procedures.
4. Memoranda of Agreement and Understanding between the two agencies.
5. Section 807 Military Construction Authorization Act (P.L. 90-408).
6. River Basins Planning Activities.
7. Coordination of activities by the two agencies which can best bring about objectives of preventing, controlling, and abating water pollution.
8. Uniform procedures between CE Districts and FWPCA.

   Possible areas for standardization of procedures are: Planning input, approvals for facilities design, notification of Corps dredging projects, and issuance of permits for construction and dredging in navigable waters.

9. Corps relationships with various state pollution control authorities. (Determine extent to which FWPCA acts as Corps agent in relationships with these authorities.)

Mr. Ray reviewed some of the recent developments in Water Pollution Control Administration, especially recent legislation and its effects on mutual programs, as well as proposed legislation which could have considerable influence on these operations. He also reviewed the Headquarters and Regional Office organization of FWPCA (See Regional Office organization chart attached) and referred to the two laboratories within the Region - one at Corvallis, Oregon, and the other at Fairbanks, Alaska. The basic functions of these laboratories are threefold:

1. Research in connection with Regional problems and problems for which national responsibilities have been assigned. For example, at Corvallis, Oregon, the Laboratory handles the nationwide problems of research and study on eutrophication, thermal pollution, and coastal pollution.

2. Pollution control investigations, experiments, field demonstrations, and studies in connection with water pollution.

3. Training relative to the prevention and control of water pollution.

Congress has appropriated $800 million for construction grants to municipalities for waste treatment facilities. In this connection, Mr. Ray indicated that regulations may be changed to provide that grant offers of funds from this appropriation would be made only to help finance secondary treatment facilities. In the past, primary treatment plants have been eligible for grants.

Mr. Ray commented on demonstration grants which are made for the purpose of helping finance projects demonstrating new waste treatment procedures that will have area or nationwide application. There was also a reference to state program grants which are made to state water pollution control agencies to help finance additional water pollution control activities over and above activities which are financed by state appropriations. Planning grants are made to pay for administrative expense of planning agencies where such agencies provide for adequate representation of appropriate state, interstate, or local interests for developing comprehensive water quality control and abatement planning for a basin.

He stated that most FWPCA research is done under contract. This is in addition, of course, to the regular research programs and projects carried out by the two Laboratories referred to above.

Mr. Clare reviewed provisions of Executive Order 11288 and referred to the Guidelines which have been set up to implement the Executive Order for the prevention, control, and abatement of water pollution by Federal installations or activities. He summarized the policy section of the Executive Order which indicates that Federal agencies should take the lead and set the example in water pollution control, prevention, or abatement.

There was a detailed discussion of Sections 2 and 3 of the Executive Order pertaining to waste treatment facilities for new and existing Federal facilities and buildings, respectively. Under these Sections, responsibility for design, construction, and operation of treatment works at CE projects rests with the Corps. However, the Executive Order indicates that FWPCA should review essential features of proposed designs and advise the Corps as to effectiveness and adequacy of proposed treatment and improvements to meet appropriate standards. In this connection, compliance with state and local criteria is necessary.

There was a brief discussion of reports which should be made to the Bureau of the Budget in accordance with Section 3 of Executive Order 11288 for existing installations that need improvement or enlargement. Implementating this requirement in the Executive Order is Bureau of the Budget Circular A-81 which provides that reports should be made in three formats: (1) format A listing of existing projects which need to be improved or enlarged; (2) format B indicates the cost of such improvements and plans for budgeting for this necessary change over a period of time, and (3) format C indicates progress in making improvements in existing installations.

Since FWPCA is responsible for advising the Corps on criteria for pollution control at proposed installations and pollution abatement at existing installations, it has been the feeling of FWPCA, and is indicated in the Guidelines for implementation of the Executive Order, that the primary responsibility for evaluating adequacy of proposed design rests with FWPCA and not with the state agency in which the installation is located. This is especially true for installations which are located on interstate waters and in which at least two states have an interest in adequacy evaluations. Furthermore, Federal standards for a Federal installation may be higher than state standards for the same installation.

Reviews of projects under Sections 2 and 3 of the Executive Order by FWPCA are based on examination of plans and specifications or evaluation of essential features provided by the CE. Reviews of such plans and specifications or essential features and consolidated comments are returned to the CE reflecting the review comments by the state water pollution control agency and FWPCA. It is in the interest of best coordination to consider all standards and criteria, and FWPCA is in an excellent position to do this.

FWPCA is in process of developing an inventory of Federal installations and facilities served by water carriage sewerage systems. These inventory data are being compiled with the assistance of the CE and other Federal agencies and will be stored in FWPCA's ADP system, STORET. This will permit retrieval of needed inventory data at any time. As soon as printouts are available, CE will be supplied with a copy of inventory data for their installations.

Mr. Johnson and Mr. Clare discussed the subject of standards in some detail. It was pointed out that besides State-Federal standards on interstate waters, there are also state standards on intrastate waters. In addition, there are standards in Executive Order 11288 and the Anti-degradation standard which is an effluent standard applying to high quality waters.

Under the Federal Water Pollution Control Act, a standard is made up of both criteria and an implementation plan for these criteria. State-Federal standards on interstate waters are subject to review and approval by the Secretary of the Department of the Interior, but state standards on intrastate waters are not subject to such review and approval. Interstate waters are extensive in the Northwest and include not only streams that cross or form a part of the boundaries of two or more states, but also all coastal waters which include estuarine waters to the head of tidal influence.

Standards in the Executive Order require, among other things, secondary treatment for wastes discharged from Federal facilities and installations. (More and more frequently the term "at least 85% removal" is appearing in discussions of secondary treatment.) Frequently tertiary or even "complete" treatment is needed. An example of "complete" treatment would be by means of a lagoon with percolation and evaporation balancing inflow and precipitation. A properly functioning septic tank--subsurface disposal system would have no surface and might also be considered a "complete" treatment system.

The Anti-degradation standard was established to protect and conserve the quality of clean waters like those which are so abundant in the Northwest. The standard means that any activity or use of water or generation of a waste should result in a minimum degree of quality degradation. For the most part, this means, for example, that wastes should receive at least secondary treatment or its equivalent. In many instances, it may be necessary to give wastes tertiary treatment to protect water quality or to prevent the direct discharge of wastes entirely. Federal agencies should comply with the highest of the four standards referred to above.

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There was a very brief discussion of the application of Executive Order 11296 pertaining to "Evaluation of Flood Hazard in Locating Federally Owned or Financed Buildings, Roads, and Other Facilities, and in Disposing of Federal Lands and Properties." The Water Resources Council has proposed "Flood Hazard Evaluation Guidelines for Federal Executive Agencies." This draft is dated September 19, 1969, and is presently under review by CE and other agencies.

Although this Executive Order was not discussed in detail at this meeting, it had been discussed previously at meetings with the District Engineers and their staffs. They have indicated that in order to fully comply with Executive Order 11296, extensive efforts toward data accumulation and flood hazard evaluation must be combined with interagency cooperation at all levels of Government. Flood damage can be prevented or drastically reduced by a realistic approach to wise use of available land and flood-proofing, where necessary. The CE under its Flood Plain Management Services Unit, is able to provide technical assistance and flood-hazard evaluation anywhere in the North Pacific Division. Every effort is made to respond without delay so that planning for any project can proceed with complete awareness of flood potential. The Corps is in a position to recommend appropriate flood-proofing measures and works with the Flood Insurance Administration in helping establish rates for flood insurance.

This work is done by the Corps under the provisions of Executive Order 11296 without reimbursement cost from the agency requesting advice in these matters. For individuals or industry, the Corps supplies copies of available data and information. For Governmental agencies, it supplies not only data but an interpretation of their application in specific instances. For assistance in evaluating flood-hazard potential, agencies are to contact the appropriate CE District Engineer.

There was a brief reference to CE responsibilities during construction of projects in water ways when the terms of the CE approved permit require pollution prevention. A specific example of this type of work is the runway extension at the Portland Airport.

Mr. Johnson discussed enforcement procedures under the Federal Water Pollution Control Act. He indicated that they are really set up for use in contiguous states where interstate pollution can be demonstrated. The steps followed in an enforcement action are: (1) A conference among the interstate agencies establishing the seriousness of the pollution problem, what should be done about it, and when by establishing a schedule or time table; (2) A hearing which covers about the same general outline as the conference but is more formal and at a higher legal standing; and (3) Reference to a Federal court. The only case in the United States in which an enforcement action has been taken as far as the court is in the case of St. Joseph, Missouri, where a court order has been issued and a decision is pending.

Where delays are occurring and no efforts are made to comply, the State is given the first opportunity to seek enforcement action. Where it is determined that more direct or concurrent Federal action is necessary, there are alternatives for action: Federal enforcement action or revision of implementation schedules in the standards if they are unrealistic.

Should Federal enforcement action be warranted, the Department may serve notice to the violators (in accordance with Section 10(c)(5) of the Act, the violators and other interested parties must be advised at least 180 days before court action can be taken.) Direct enforcement action is limited to cases where the effects of pollution are interstate or, with the enforcement conference procedures, economic injury has resulted from the failure to market shellfish in interstate commerce. If a CE permit is involved, the Secretary of the Army could withdraw the permit.

There was considerable interest among CE representatives attending the meeting in evaluation of the effect of water resource projects on water quality within the reservoir. While the FWPCA is primarily interested in the effects of the project on water quality, FWPCA is also interested in the effects on water quality within a reservoir; for example, if these effects influence water uses within the reservoir, such as fisheries and water supply.

FWPCA advised that monitoring of effluent is the responsibility of the industry or agency generating, treating, and discharging a waste while monitoring streams is the responsibility of the state and/or FWPCA. FWPCA can logically be expected to have more responsibility for monitoring interstate waters while the state would have the primary responsibility for monitoring intrastate waters. Arrangements exist for a free exchange of monitoring records between the state and Federal pollution control agencies where interstate waters are involved.

At previous meetings with the Districts, flow regulation studies for water quality had been discussed. There has been an organizational transition in the conduct of studies by FWPCA from: (1) the years under which flow regulation studies were completed within the framework of the Comprehensive Planning Program; (2) the present situation under which flow regulation studies are not integrated with River Basins Planning activities.

There has been considerable development in the level of proficiency with which these studies are conducted. At the present time FWPCA is capable of producing effective reports within limited time periods. To demonstrate this capability, however, FWPCA needs to resolve two major problems: (1) an organizational problem, the solution of which will define the role of flow regulation studies within the regional program of water quality control planning; and (2) a scheduling problem, the solution of which will permit FWPCA to coordinate flow regulation studies with the needs of other Federal and state agencies and to establish levels of priorities on individual projects on the basis of needs and timing.

There was a brief discussion of the letter dated December 5, 1969, sent to the CE District Engineers and the Area Engineers of the Bureau of Reclamation (BR) by the Regional Director. These letters requested assistance of the Corps and the Bureau in scheduling project studies for the year 1971. In this connection, the CE Division office indicated that they wanted to be fully informed of water resource project work done by and with the CE Districts. It was agreed that Mr. Ray would advise Mr. Olson of all developments pertaining to river basin study in the Districts.

Mr. Ray pointed out and it was agreed that there may be some value if the CE had an internal directive at the Division level stating that the Corps could call upon FWPCA for consultant assistance as well as routine services on water quality evaluation.

The Memorandum of Agreement between the Department of the Interior and the Department of Defense, dated September 13, 1968, and the Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army, dated July 13, 1967, were discussed in some detail. Copies of these are attached.

Section 7 of the Executive Order 11288 states that the heads of departments, agencies, and establishments should prescribe regulations and conditions or stipulations concerning conservation or enhancement of water quality in connection with execution of contracts or in providing loans or grants. In this connection, Mr. Ray discussed the Department of the Interior's Oregon Pilot Survey which was designed to develop recommendations and procedures to be followed by Interior Agencies in protection of water quality through proper land management procedures and practices. Mr. Ray also referred to a national seminar on Sedimentation which is to be conducted at the Northwest Water Quality Laboratory at Corvallis this summer.

The CE expressed an interest in training programs conducted at the Corvallis Laboratory. In connection with their survey of water quality in the CE reservoir projects, they are interested in training in the techniques of water quality prediction and inquired whether a course at the Corvallis Lab could be designed and tailored to meet CE requirements or needs. They indicated that approximately 20 people would be interested in the course and that arrangements might be made for reimbursement of cost under contract with the Corps. The Corps indicated that Lyman Nielson, Training Officer at the Laboratory, had previously asked the Corps about the need for such a course and that they had submitted a course outline to him. The Corps is very anxious to have a follow-up on arrangements for this course. Mr. Nielson will be advised of this request.

Inquiry was made about action taken by FWPCA as a result of a questionnaire sent out approximately a year and a half ago on research needs. Considerable time was spent in answering this inquiry and the Corps is anxious to have a follow-up on this matter.

There was a brief reference to Section 8 of Executive Order pertaining to wastes from water craft. FWPCA has prepared a report evaluating this problem and has recommended the development of standards in a program for improving waste treatment in connection with water craft operation. The CE is interested in this matter since it operates dredges with up to 95 men aboard and is involved to some extent in the development of plans for marinas, small boat harbors, and other recreational facilities on navigable waters.

There was some discussion of CE responsibility for monitoring wastes from treatment facilities at Corps-owned installations, as well as wastes from facilities and installations built or financed by the Corps and subsequently "turned over" to state or local governmental agencies. The Corps has no responsibility for facilities built by the Corps and subsequently turned over to other governmental agencies.

The CE Division office indicated that they have responsibility to coordinate activities and to encourage or establish uniform procedures among the Districts within the Division. One point of non-uniformity which has been found among the Districts is in connection with coordination of Sections 2 and 3 projects. FWPCA feels it should be the principal coordinator (liaison) between the Corps and the states in evaluating these projects. The Corps will maintain their contacts with state pollution authorities. However, any design criteria requiring evaluation by both FWPCA and a state will be submitted only to FWPCA.

Another point of difference is in the appointment and use of "coordinators" appointed by the Corps. Mr. Ray indicated that appointment of coordinators was not critical as far as FWPCA is concerned. Until FWPCA is advised otherwise, it will continue to make contacts at the Administrative level with the District and/or Division Engineer.

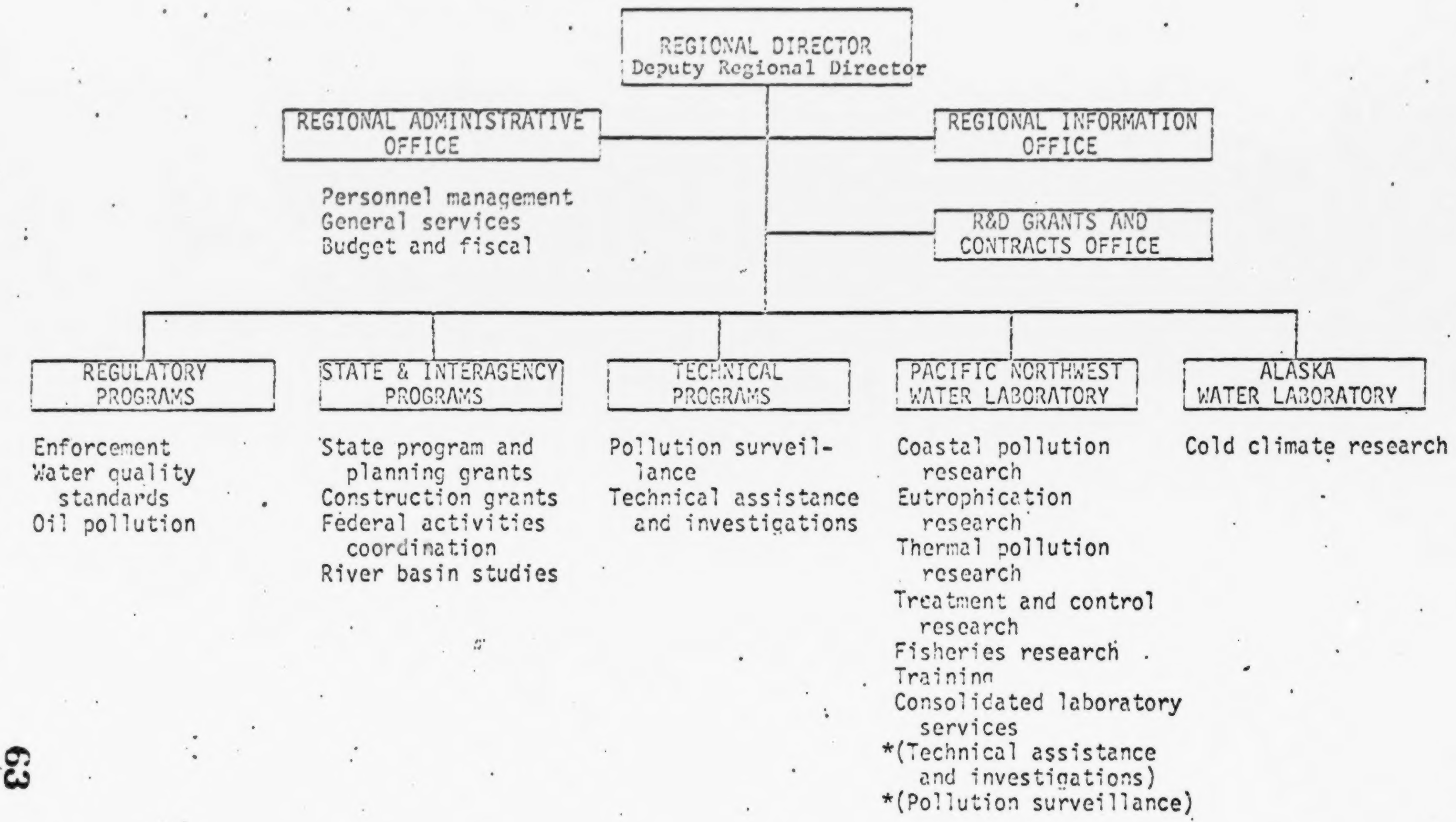
It was agreed that the CE Division and FWPCA Regional Office would exchange organizational charts which should be accompanied by a brief description of functions carried out by elements of the respective organizations. (See attachment.)

Attachments:

1. Executive Order 11288
2. Guidelines for prevention, control, and abatement of water pollution by Federal activities.
3. Memorandum of Agreement between the Department of the Interior and the Department of Defense
4. Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army
5. The Anti-degradation standard.
6. Organization Chart

H. C. Clare
1/30/70

Federal Water Pollution Control Administration, Northwest Region


REGIONAL DIRECTOR
Deputy Regional Director
REGIONAL ADMINISTRATIVE OFFICE
Personnel management
General services
Budget and fiscal
REGIONAL INFORMATION OFFICE
R&D GRANTS AND CONTRACTS OFFICE
REGULATORY PROGRAMS
Enforcement
Water quality standards
Oil pollution
STATE & INTERAGENCY PROGRAMS
State program and planning grants
Construction grants
Federal activities coordination
River basin studies
TECHNICAL PROGRAMS
Pollution surveillance
Technical assistance and investigations
PACIFIC NORTHWEST WATER LABORATORY
Coastal pollution research
Eutrophication research
Thermal pollution research
Treatment and control research
Fisheries research
Training
Consolidated laboratory services
*(Technical assistance and investigations)
*(Pollution surveillance)
ALASKA WATER LABORATORY
Cold climate research

* Receives technical and program direction from Regional Program Director for Technical Programs.

Functional Statements

Regional Director's Office

Provides over-all operational direction, management, and planning of FWPCA activities in the Northwest Region.

Public Information Office

Provides Regional information services on all aspects of FWPCA activities in the Northwest Region. Provides assistance to all Regional programs for report writing/editing, publication and release.

R&D Grants and Contracts

Serves as Regional R&D grants and contracts liaison to develop research at universities, industries and agencies and to administer grant procedures for projects being developed or under way.

Regional Administrative Office

Provides service to the Regional Director and staff and exercises delegated controls in all administrative areas including personnel management, budget and finance, procurement, property and supply management, office services, safety and security, and related matters. Provides technical guidance to administrative staffs at the Pacific Northwest Water Laboratory, and Alaska Water Laboratory.

Regulatory Programs

Administers Regional responsibilities for enforcement, water quality standards, and oil pollution. Receives technical and field support for these functions from Technical Programs.

State and Interagency Programs

Coordinates and conducts Regional activities for State program grants and river basin planning grants.

Administers Regional responsibilities for construction grants.

Conducts Regional program to implement the President's Executive Order 11288 regarding the prevention and control of pollution from Federal activities, including land management practices.

On an area basis, conducts water resource development studies, evaluates the impact of project development on water quality, and provides FWPCA participation and contribution to interagency multi-purpose planning conducted under the Pacific Northwest River Basins Commission.

Technical Programs

Conducts Regional pollution surveillance program, primarily water quality data collection and analysis, water quality and M&I waste inventory development and maintenance, Storet program, and automatic data processing services.

Provides technical support and assistance to other Regional programs, State agencies and other Federal agencies, on a priority basis, including field investigations, special studies, waste treatment evaluations, and fisheries expertise.

Pacific Northwest Water Laboratory

Directs national research programs for (1) eutrophication, (2) coastal pollution, (3) thermal pollution, and (4) treatment and control of wastes from the pulp and paper and food processing industries, as well as the conduct of technical projects in the nature of applied research to satisfy Regional needs.

Conducts biological research on the effects of pollution on fisheries indigenous to the Pacific Northwest.

Administers Regional programs in technical training, training grants, and manpower and development.

Directs and operates Regional laboratory services, including those in Portland and Corvallis.

Alaska Water Laboratory

Directs research effort in cold climate pollution control, with specific emphasis on solution of Alaska pollution control problems.

SUMMARY OF DISCUSSION

SOIL CONSERVATION SERVICE, USDA
WEST REGIONAL TECHNICAL SERVICE CENTER

and

FWPCA, NORTHWEST REGION

On February 18, 1970, representatives of the Soil Conservation Service (SCS) of the West Regional Technical Service Center (WRTSC) and the State Conservationist of Oregon met with personnel from the Federal Water Pollution Control Administration (FWPCA), Northwest Region, in the FWPCA conference room, 501 Pittock Block, Portland, Oregon.

The purpose of this meeting was to undertake a review of programs for prevention, control, and abatement of water pollution from projects in which the SCS has some responsibility for design, operation, and maintenance, in relation to Executive Order 11507, and to discuss FWPCA responsibilities in working with the SCS in these matters.

The following personnel participated in the program review:

Soil Conservation Service

Steven J. Kortan	Field Representative & Director of WRTSC
A. J. Webber	State Conservationist (Oregon)
Fred Rasmussen	Watershed Planning Specialist, E & WP Unit
E. J. Core	Head, Engineering & Watershed Planning Unit
L. Dean Marriage	Regional Fisheries Biologist, WRTSC

FWPCA

Hurlon C. Ray	Director, Office of State & Federal Assist.
Herbert C. Clare	Federal Activities Coordinator
Lloyd A. Reed	Interagency Representative, FAB
C. E. Veirs	Regional Specialist, Irrigation & Land Mgmt.
Dr. Robert W. Zeller	Director, River Basin Planning Programs
Stanley Brust	Civil Engineer, Federal Activities Br., Alaska
R. B. Marston	Water Quality Management Specialist
W. A. Newell	Sanitary Engineer, Federal Activities Branch

Mr. Ray reviewed some of the recent developments in Water Pollution Control Administration, especially recent legislation and its effects on our mutual programs as well as proposed legislation which could have considerable influence on these operations. He also reviewed the Headquarters and Regional Office organization of FWPCA and referred to the two Laboratories within the Region - one at Corvallis, Oregon, and the other at Fairbanks, Alaska. The basic functions of these Laboratories are threefold:

1. Research in connection with Regional problems and problems for which national responsibilities have been assigned. For example, at Corvallis, the Laboratory handles the nationwide problems of research and study on eutrophication, thermal pollution, and coastal pollution.

2. Pollution control investigations, experiments, field demonstrations, and studies in connection with water pollution.

3. Training relative to the prevention and control of water pollution.

Congress has appropriated $800 million for construction grants to municipalities for waste treatment facilities for FY 1970. In this connection, Mr. Ray indicated that regulations may be changed to provide that grant offers of funds from this appropriation would be made only to help finance secondary treatment facilities. In the past, primary treatment plants have been eligible for grants.

Mr. Ray commented on demonstration grants which are made to governmental agencies or industries for the purpose of demonstrating new waste treatment procedures that will have area or nationwide application. There was also a reference to state program grants which are made to state water pollution control agencies to help finance additional water pollution control activities over and above activities which are financed by state appropriations. Planning grants are made to pay for administrative expenses of planning agencies where such agencies provide for adequate representation of appropriate state, interstate, or local interests for developing comprehensive water quality control and abatement planning for a basin.

Mr. Ray discussed the Regional Office organization and indicated that four programs function under the Regional Director and his Deputy. These are Regulatory, Technical Support, River Basin Planning, and State and Federal Assistance. He indicated that the RD of FWPCA reports directly to the Commissioner at Headquarters. The nation is divided into nine Regions of which the Northwest Region is one. Mr. Ray indicated that the contacts with FWPCA by SCS at the administrative level should be made with the Regional Director, FWPCA, or to the Regional Director, Attention: Director, State and Federal Assistance Programs. Field or operational contacts with FWPCA may be made directly with Lloyd A. Reed, who will assume the position of Federal Activities Coordinator effective March 1, 1970.

Mr. Kortan discussed organization of the SCS in the West and indicated that the West Regional Area is composed of 13 western states. Mr. Kortan's Office reports directly to the Office of the Administrator of SCS in Washington. Each state SCS program is administered separately by or under the supervision of a State Conservationist and his staff. The staff of the West Regional Technical Service Center under Mr. Kortan provides technical support to each State Conservationist and his staff.

The primary contacts with SCS in matters of projects should be with the appropriate State Conservationist. However, matters of a general or technical nature can be appropriately taken up with Mr. Kortan, Director, WRTSC, SCS.

Mr. Webber indicated that principal functions of the SCS are described in the publications which were distributed to those in attendance. These publications are: Watershed Protection and Flood Prevention Act as Amended, Facts About Resource Conservation and Development Projects, Multiple Purpose Watershed Projects Under PL 566, and USDA publication, "Let's Grow" which describes community benefits from watershed projects.

Mr. Rasmussen described 566 projects and indicated they may be multiple purpose in nature. Eligible purposes include flood prevention, agricultural water management (principally irrigation and drainage), recreation, fish and wildlife, and municipal and industrial water supply. Land treatment is basic to every 566 project and is the first increment of project formulation.

Mr. Rasmussen also described basic steps in development of SCS projects. The first step is the formation of an application by a "legal entity" for the project. This application is reviewed by the Governor and the responsible water resource project agency of the state before any further action can be taken. Once the application has been approved and accepted, then preliminary studies by the SCS in evaluating the project can commence. Following this, authority and funding from the SCS Administrator must be received in order to proceed with the development of work plans. At this point in time it is the general practice to send notices to other Federal and state agencies to alert them that such studies are underway and ask for notification of any interest they may have in the watershed and plan, and invite their submission of any data or information that might be pertinent or useful. At the completion of work plans they are reviewed for technical adequacy and conformance to policy at the field level, copies sent to field offices of other agencies, and sent to the Washington office of SCS where they are given the final review and submitted to other Federal departments for comment.

At this point, Mr. Veirs distributed a tabulation of the status of PL 566 small watershed projects in the Pacific Northwest Region of the eight states. The SCS requested to complete or update the table on status of PL 566 projects.

Status reports presently submitted by State Conservationists are not uniform but Mr. Kortan indicated that the state offices can be asked that the status reports be issued in a manner similar to that presently done by the Oregon State Conservationist's office.

A discussion was held concerning the point in time when FWPCA could best be brought into the planning picture. It was generally agreed that the above notice of initiation of planning and solicitation of interest was the best time to acquaint FWPCA with general project objectives and proposals, and to determine anticipated problems with pollution. FWPCA and other agencies will also have the opportunity to review and comment on the completed work plan.

Dr. Zeller indicated that the River Basin Planning program of FWPCA should come into action when a planning project has been determined to be "viable;" that is, when a project is fairly certain of going through to completion of the work plans. At this point, Dr. Zeller indicated that he had two lists of proposed projects--those which he expects to act on under his priority and the other of those which he does not expect to be able to accomplish. Copies of both lists will be sent to SCS.

Mr. Veirs suggested that FWPCA have a part in making the work plans along with other Federal agencies such as FS, FHA, F&WLS, etc., as well as state agencies.

Mr. Kortan indicated that he would advise other SCS offices to notify FWPCA when projects reached the stage where the SCS Administrator has authorized development of a watershed work plan. Mr. Clare asked if storage could be provided in SCS projects for water quality control. The answer was that this can be done but is not eligible for PL 566 assistance under present authorizations. However, the matter is under consideration and it is possible that procedures may be amended to permit this consideration. Dr. Zeller indicated that the project size limitation to 25,000 acr/feet of storage would limit the opportunity to accomplish much in water quality control from storage from SCS projects. Dr. Zeller indicated, however, that SCS projects do have a marked tendency to stabilize flows which in turn benefits water quality.

Mr. Marriage indicated that projects have beneficial effects on water quality through a combination of improved land treatment and structural measures. However, only a few of the many possible benefits of sediment control have been recognized. There is need for a procedure for economic evaluation of all benefits of sediment control and other measures.

Mr. Ray asked how far SCS could go in prescribing land treatment measures. Mr. Webber indicated that the Service cannot prescribe land treatment measures for control of pesticides and/or fertilizers but that erosion control measures are recommended. Mr. Ray also asked about control of operation of PL 566 projects in the interest of water quality. SCS indicated that ownership, operation and maintenance are vested in the local sponsoring organization and are subject to state law.

The SCS representatives stated that it is a requirement of the Act that at least 50% of the lands above any storage type structure be under a conservation plan, and that at least 75% of the needed land treatment measures be installed, or their installation provided for, on lands which, if uncontrolled, would materially affect the cost of construction or operation of the structural measures. Mr. Veirs indicated that he thought the objective of SCS should be that 100% of the area in both instances should be effectively controlled. SCS agreed that this was desirable, but it must be recognized that the responsibility and financing of land treatment rests with the farmers.

In response to a question from Mr. Ray, SCS indicated that they are working at the present time on design criteria for lagoons to receive and handle feedlot wastes. They indicated further that such technical assistance can be rendered by SCS but that the cost of such installations, as with all land treatment, cannot be financed in any part by SCS. Cost sharing for land treatment measures may be provided by ACP. The SCS has a national practice standard which can be used in the design of lagoons. In connection with the national practice standard for the lagoon design, it was pointed out that different states have different criteria for designing waste treatment facilities to be used in connection with feedlots. The Northwest Region, FWPCA, is presently compiling an inventory of feedlots. It is expected that this will be completed in the near future and copies will be supplied to the SCS.

As a point of information, a lagoon symposium is planned for Kansas City on June 23-25. At this symposium the latest technical information on design, operation,and maintenance of waste lagoons will be presented in considerable detail.

Mr. Kortan indicated that the SCS offices will be interested in information on FWPCA activities such as reports of studies, monitoring programs, inventories, reports of river basin studies, etc. Mr. Ray indicated that these could be supplied.

Mr. Webber pointed out that because of the Columbia-North Pacific Study and Type II studies of other river basins, such studies will generally preclude the need for future preliminary studies before the development of the SCS project work plans.

Mr. Ray asked what was the possibility of exerting influence on the individual farmer accepting payment under the ACP program for instituting conservation measures. It was explained that SCS conservation practice standards must be met by the farmer before ACP cost sharing assistance is furnished.

Mr. Webber called attention to the fact that where the Executive Order 11507 provides 90 days for review of a water resource project, the PL 566 requirement is that only 30 days be allowed for such a review. This discrepancy is to be discussed at a FWPCA headquarters level meeting in Washington, D.C., next week.

Mr. Clare developed the subject of standards in detail. It was pointed out that besides the State-Federal Standards on interstate waters, there are also state standards on intrastate waters. In addition, there are standards in the Executive Order 11507, and the Anti-degradation standard in effect, is an effluent standard. He also pointed out that the standards in Executive Order 11507 provide for "performance specifications," which are also effluent standards.

Under the Federal Water Pollution Control Act, a standard is made up of both criteria and an implementation plan for these criteria. State-Federal standards on interstate waters are subject to review and approval by the Secretary of the Department of the Interior, but state standards on intrastate waters are not subject to such review and approval. Interstate waters are extensive in the Northwest and include not only streams that cross or form a part of the boundaries of two or more states, but also all coastal waters which include estuarine waters to the head of tidal influence.

Standards in the Executive Order require, among other things, secondary treatment for wastes discharged from Federal facilities and installations. More and more frequently the figure "85% removal" is appearing in discussions of secondary treatment. There was some discussion of the practicability of this degree of treatment in large estuaries such as Puget Sound.

It was further pointed out that the standards in the Executive Order state that the preferred method of waste disposal from Federal installations is through a municipal system and treatment facilities. The treatment of wastes by septic tank with subsurface disposal is generally accepted as being equal to secondary treatment for small installations when properly and adequately designed and maintained.

The Anti-degradation standard was established to protect and conserve the quality of clean waters which are so abundant in the Northwest. The standard means that any activity or use of water or generation of a waste should result in a minimum degree of quality degradation. For the most part, this means, for example, that wastes should receive at least secondary treatment or its equivalent. In many instances it may be necessary to give wastes tertiary treatment to protect water quality or to prevent the direct discharge of wastes entirely. Mr. Clare indicated that in his opinion Federal agencies should comply with the highest of the four standards referred to above.

There was a brief discussion of the significance and application of Executive Order 11296 pertaining to "Evaluation of Flood Hazards in Locating Federally Owned or Financed Buildings, Roads, and Other Facilities, and In Disposing of Federal Lands and Properties." In order to fully comply with the Executive Order 11296, extensive efforts toward data accumulation and flood hazard evaluation have been combined with interagency cooperation at all levels of government. Flood damage can be prevented or drastically reduced by a realistic approach to wise use of available land and flood-proofing, where necessary.

The Corps of Engineers, under its Flood Plain Management Services Unit, is able to provide technical assistance and flood hazard evaluation anywhere within the CE districts. The Corps makes every effort to respond without delay to requests for information or certification in order that planning for any project can proceed with complete awareness of flood potential. The Corps is in a position to recommend appropriate flood-proofing measures and works with the

Flood Insurance Administration in helping to establish flood insurance rates. This work is done by the Corps under the provisions of Executive Order 11296 without reimbursement from the agency requesting advice in these matters. For individuals or industry the Corps supplies copies of available data and information. For governmental agencies it supplies not only data but an interpretation for their application in specific instances.

Mr. Webber explained that the Pacific Northwest River Basins Commission is presently engaged in establishing priorities for the collection of data and in the planning, construction, and operation of water resource projects. In the future, then, the priorities of which areas or projects will be studied may be pretty well established.

Mr. Kortan had raised the question previously whether our Federal agency, FWPCA, had a state counterpart and was advised that each state had some water pollution control authority agency.

Mr. Reed explained that before any replies or reviews of SCS or Bureau projects were made that these were generally sent to the states for comment and their comments were included in replies to the construction or responsible agency.

Mr. Veirs discussed the following points: that some agencies of the Department of the Interior were not too well informed on the activities of the SCS and 566 projects; that there were undeniable benefits from each of the land measures or conservation measures developed by the farmer but there were no ways of measuring the impacts as far as water quality is concerned from these measures.

Mr. Marriage agreed measuring procedures have not been developed and said that what was needed were some before and after measurements on the effect of PL 566 projects on water quality. A monitoring or surveillance system is needed to measure these effects. Studies should be made of both the land treatment and structural measures including small reservoirs, since previous studies have been mainly concerned with the larger reservoirs. Mr. Ray encouraged the SCS to propose that FWPCA make a study of the effects of these measures on water quality.

Mr. Veirs indicated that he would work with the various state conservation offices at the earlist opportunity after applications were accepted or under preliminary studies to furnish the SCS with whatever data or problems that we may know of in the project area.

SUMMARY OF DISCUSSION
U.S. FOREST SERVICE, PACIFIC NORTHWEST REGION
and
FEDERAL WATER POLLUTION CONTROL ADMINISTRATION, NORTHWEST REGION

On May 22, the following FWPCA representatives met with USFS Northwest Regional Office staff in Portland, Oregon:

Hurlon C. Ray, Director, State and Interagency Programs
Herbert C. Clare, Chief, Federal Activities Coordination
Dr. Richard B. Marston, Water Quality Management Specialist
Herndon S. Hill, Sanitary Engineer, Federal Activities Coordination

The following Regional Office staff from the Pacific Northwest Region of the Forest Service were in attendance:

Vernon O. Hamre, Deputy Regional Forester
Charles D. Hof; Engineering, Roads, Preconstruction
Bruce B. Plath; Engineering, General, Branch Chief
Donald H. Hart; Engineering, Water and Sanitation
Charles B. Waldron; Range & Wildlife Management, Range Revegetation, Improvements, and Noxious Weeds, Branch Chief
Robert G. Lewis; Recreation; Recreation Management Administration
C. G. Jorgensen; Timber Management, Division Chief
Benton Howard; Timber Management, Branch Chief, Insect and Disease Control
Lloyd G. Gillmor; Watershed Management, Division Chief
William R. Boring; Watershed Management, Water Management, Branch Chief
Gerald W. Swank; Watershed Management, Water Management

In addition to the above, the following were also in attendance:

Robert W. Harris, Assistant Director, Watershed, Recreation, Range and Wildlife, Pacific Northwest Forest and Range Experiment Station, Portland, Oregon.
Robert F. Tarrant, Project Leader, Behavior and Impact of Forest Chemicals, Forestry Sciences Laboratory, Corvallis, Oregon.

The purpose of the meeting was to undertake an annual review of Forest Service (FS) programs of Loans, Grants and Contracts and/or Prevention, Control or Abatement of Water Pollution from Existing or Proposed FS Facilities or Activities in relation to Executive Order 11288, and to discuss Federal Water Pollution Control Administration (FWPCA) responsibilities in working with FS in these matters. Provisions for such a discussion are established in the Memorandum of Agreement between the Chief of the Forest Service and the Commissioner of FWPCA, dated July 18, 1967. This Agreement provides for the discussion mentioned above, as well as for identification of areas where cooperative administrative studies and demonstration or research projects can be mutually beneficial.

The discussions were centered around such activities as recreation, logging practices--including roadbuilding, sewage disposal, chemicals, sediment, pesticides, and other factors having a significant effect on water quality. The meeting resulted in plans for developing mutually acceptable procedures for coordinating agency activities and FWPCA responses to FS requests for advice and assistance on pollution problems.

Regional Office organization of the FWPCA was discussed by Mr. Ray. Among other things, Mr. Ray reported there are two laboratories in the Northwest Region of FWPCA. The principal functions of these laboratories are: (1) research on special problems; (2) technical assistance, and (3) training. The two laboratories are: Alaska Water Laboratory at College, Alaska, and in the Columbia River Basin, the Pacific Northwest Water Laboratory at Corvallis, Oregon. Some water quality problems of nationwide interest and concern have been assigned to the latter. These are eutrophication, coastal and estuarine, and thermal effects studies. He commended the FS particularly in the Northwest Region, for its progressiveness and advanced programs and activities in the interest of preservation of water quality and prevention of water pollution.

Mr. Ray also referred to a proposed memorandum of understanding among the Wyoming Department of Public Health, the FS Intermountain Region, and the FWPCA, Pacific Southwest Region, for prevention and control of pollution from activities associated with a timber sale from forest lands located in Southwestern Wyoming and Northern Utah. Such a supplementary memorandum of agreement is authorized in the Memorandum of Agreement between the Chief of FS and the Commissioner of FWPCA, referred to above. Along with the proposed memorandum of understanding, it is also proposed that specific language be included in the Green River Pulp Sale prospectus and contract. In effect, this would require that purchasers of National Forest timber not only protect water quality in the logging operation, but also in the processing at the mill. These two proposals are still under consideration by the FS Intermountain Region and FWPCA Southwest Region.

Mr. Ray also expressed appreciation for cooperation and courtesies extended by the FS to the FWPCA.

Mr. Lewis, in the Division of Recreation, Recreational Management; and Mr. Hart, Division of Engineering, Water and Sanitation, summarized some of the pollution problems connected with development and operation of recreational areas and facilities in the Pacific Northwest Region. These included discussions of waste disposal facilities at Heather Meadows in the Mt. Baker National Forest, Stevens Pass in the Snoqualmie National Forest, and Diamond Lake in the Umpqua National Forest. A proposed recreational development at Wickiup Lake in the Deschutes National Forest was also mentioned.

FS and FWPCA personnel have been working on development of plans for all of these except Wickiup, and it is anticipated that this proposal will come under discussion in the near future. These recreational facilities are, of course, oriented toward campground and camping use and, for the most part, all have water systems. Those at Diamond Lake, Heather Meadows, and Stevens Pass also have water carriage sewer systems. FS officials indicated that plans for development of recreational areas are well ahead of the funds that are available for this purpose.

Mr. Hof, Preconstruction - Roads, indicated the Division of Engineering is responsible for policy and guidance in the design, construction and maintenance of logging and other roads in Region 6. The actual location and design of roads is accomplished in each Forest. He further stated that guides on erosion and sedimentation controls in connection with roadbuilding and use had been written and issued to Forest officials and field personnel. He indicated that in his experience where roads were built in compliance with restrictive specifications for excavation and placing of embankment and having stabilized wearing surfaces, there was less apparent erosion and sedimentation.

Mr. Jorgensen, Assistant Regional Forester, Timber Management, discussed in some detail the functions of his office. He indicated that some 60,000 acres per year are clearcut in the Northwest Region, and that 200,000 to 300,000 acres are partially cut on a selective basis. One of the main problems in timber management is logging debris which accumulates in streams. Much roadbuilding is associated with timber harvest. He indicated that, for the most part, provision for this roadbuilding has been affected by a relatively recent Congressional authorization that such roads be "prudent" operator roads. However, the FS has adequate authority to require soil erosion prevention and control measures to be taken by the operator and will enforce these requirements.

With respect to roadbuilding, Dr. Marston discussed briefly a document he is preparing. Its tentative title is "Some Recommended Logging Practices for Stream Water Quality Control." It is intended mainly as a guide for roadbuilders and loggers and as a source of public information.

Mr. Jorgensen also reported on use of pesticides. Herbicides are used to knock down deciduous growth, thus releasing the conifers for more rapid growth. He also reported on animal damage to seedlings as well as animal consumption of seeds and the necessity for controlling this damage. The poison 1080 is used for poisoning animals which may be damaging seedlings or consuming seeds, and Endrin is used essentially for treatment of seeds and serves the purpose of a rodenticide.

The use of fertilizers for the enhancement of growth was also discussed. Private timber owners are now using this method in attempts to increase the rate of timber growth. However, the FS feels that more answers should be secured before it undertakes extensive use of fertilizers. From a water quality standpoint, the runoff from a fertilized area might enrich receiving waters, and thus result in increased rate of eutrophication and algal development.

The FS expressed much interest and urgent need to seek and obtain more knowledge about forest fertilization, especially as it affects water quality.

Mr. Jorgensen reported on the topical application of cacodylic acid in timber thinning programs. This is an arsenic compound, and of concern is the safety of the persons applying the acid. There is also some concern over possible leaching of the arsenic compound into receiving waters. Use of arsenical pesticides is presently under study under FS sponsorship in the Wenatchee area. Arsenicals, at one time, were used in that area in orchard sprays, and laboratory and staff are available for making a study on arsenic compounds.

Mr. Howard, Branch Chief, Insect and Disease Control, reported on application of insecticides. The use of DDT has been practically discontinued. Zectran is being tested as is pyrethrum. Mr. Howard indicated that on a project basis water sample analysis is contracted with the State Chemist in the Oregon State Department of Agriculture. Other State and Federal agencies also help with monitoring.

There is considerable pressure at the present time to increase timber production through shortening the timber rotation cycle. If this were done, it would result in a marked increase in timber cutting, the building of more roads, and an impact on water quality. A more acceptable alternative is to intensify management by accelerating reforestation, thinnings, and other cultural practices.

Mr. Waldron, Branch Chief, Range Management, reported that some 15,000 acres are scheduled for range improvement. Seven thousand of these are to be sprayed for the control of brush on rangeland, 5,000 acres are to be seeded. Mr. Waldron also reported that FS personnel who supervise pesticide application in National Forest animal damage control programs are given special training and certified as poison bait handlers by the FS. Certificates are renewable every three years. Training is given by FS and Fish and Wildlife Service experts in the field. Baiting programs are coordinated with the U.S. Fish and Wildlife Service and with other public agencies or private parties affected by specific projects.

Mr. Boring, Branch Chief, Water Management, referred to the FS annual program of work as it applies to water quality management. This program is intended to be responsive to onsite and downstream water supply and water quality needs in the planning and administration of National Forest programs. In water-deficient areas, there is cooperation with local water masters and water users in conserving water. Efforts are made to prevent degradation of water quality by National Forest operations through such measures as preserving streamside filter strips; maintenance of stream shade cover for temperature control; providing adequate buffer zones between streamsides and new road locations; controlling wet season logging, construction and hauling; and promptly revegetating raw, exposed soils, using appropriate cover species and mulches as needed.

Each Forest Supervisor is charged with examining these aspects of his program and assuring that these items are fully considered. This emphasis is responsive to Executive Order 11288, which followed the Water Quality Act of 1965, and to the Amendment to the Federal Water Pollution Control Act. The Water Quality Act of 1965 also provided for the promulgation of water quality standards for interstate waters. Executive Order 11288 directs Federal agencies to set the example and take the lead in enhancement of water quality.

The individual states are now proceeding with promulgation of standards for intrastate waters. Forest Supervisors are asked to screen all proposed standards which may affect their Forests and to work toward implementation of reasonable standards.

Mr. Boring also discussed the protection of municipal water supply watersheds. He indicated that multiple land uses do not seriously degrade bacterial quality. He also indicated it is FS policy to work cooperatively with municipalities to broaden uses in municipal water supply watersheds, and to not limit uses to water supply alone. State Health Department and municipal water supply administrators feel that protection of municipal water supply watersheds of the nature of those used by Portland, Tacoma, and Seattle, is very important where disinfection is the only water treatment given. It has been pointed out by health officials that water quality sampling and measurement of bacterial characteristics, because of the time lag between sample collection and data results, indicate what the quality was, not what it is. Therefore, some control over activities in a watershed is also necessary.

Mr. Swank, Division of Watershed, Water Management, reported on monitoring and the collection, storage and retrieval of data. The FS has developed a data storage system which is compatible with the STORET System. It is generally recognized that there is a big advantage in coordination by FWPCA and FS of data processing and retrieval.

Mr. Gillmor, Assistant Regional Forester, Watershed Management, discussed soil surveys and soil classification and their uses in water quality management matters. He emphasized the fact that all branches of FS operations have responsibilities in water quality control.

Mr. Boring referred to a stream water temperature study on the North Umpqua that is being done cooperatively by the FS, Bureau of Land Management, Oregon State University, and State Game Department. The information from this study will be used to refine management practices needed to safeguard stream temperatures. It will also help in testing mathematical models developed for predicting temperature effects.

Mr. Harris, Assistant Director, Watershed, Recreation, Range & Wildlife, reported on research activities in the FS under his jurisdiction, which includes Alaska and the Pacific Northwest Region of the FS. Mr. Harris indicated that the mission of the Pacific Northwest Forest & Range Experiment Station is to provide the scientific knowledge, technology, range, and related environments for present and future generations. The area of research encompasses Alaska, Washington, and Oregon, with some projects extending into California, Hawaii, other Western States, and into other parts of the Nation. He also referred to water research at Juneau, which applies to coastal forests and deals mainly with fish habitat, sediment control, and erosion reduction.

A project at Wenatchee deals with water yields and sediment reduction, and on the west side, research is carried out in forest land management practices, as well as on application of chemicals.

Mr. Tarrant, Project Leader, Pollution of Forest Environment, reported on research which is being done on DDT application in the Burns area. This research has not confirmed findings which have been made in the eastern part of the United States as to persistence of DDT with time. There is some question as to whether or not materials which show up in some analyses as DDT, are, in fact, that substance. Similar uncertainty exists in connection with some determinations of Endrin which is used as a rodenticide. Mr. Tarrant reported one study where the quantitative determination of Endrin resulted in amounts greater than could have been applied. He also indicated that there is some question about the degradability or organic phosphates; that some tests show that even six months after application as much as 98 percent may remain in the forest soil. He also emphasized the fact that there are still problems which are un solved in application of nitrates as forest fertilizers. It is generally recognized that there are problems, but the answers are not yet available.

Mr. Ray asked Mr. Clare to discuss Executive Order 11288 and water quality standards as they might relate to FS operations.

Mr. Clare indicated that under the Federal law, a standard is made up of both criteria and implementation of these criteria. He pointed out standards are established in Executive Order 11288, in the State-Federal Standards for Interstate Waters, as set up under Water Quality Act of 1965, and State Standards for Intrastate Waters. The last are established by the States and are not subject to Federal review and approval. He also discussed the Nondegradation Policy which, in itself, is a water quality standard.

The standards in Executive Order 11288 apply to all Federal facilities and installations, as well as activities, whether they are located on interstate waters or intrastate waters. The application of State-Federal or State standards is determined also by the location and nature of the Federal facility. This means that if a Federal installation is located on an intrastate stream, it should comply with the State standards for the waters on which it is located as well as standards in Executive Order 11288 and the Nondegradation Policy.

The Nondegradation Policy was established to protect and conserve the quality of clean waters which are so abundant in the Pacific Northwest. The Policy means that any use of water should result in a minimum amount of quality degradation. For the most part, this means for example, that waste should receive at least secondary treatment or its equivalent. In many instances waste will need to be given tertiary treatment to protect the water quality, or waste must be kept out of the waters entirely.

The Executive Order states that the preferred method of disposal of wastes from a Federal installation is through a municipal system. The purpose of this is to prevent the installation of multiple waste treatment facilities with consequent increase in cost of operation and maintenance. Even if a municipal installation does not presently have adequate treatment, it should still be used by the Federal agency because the State Water Pollution Control Agency will bring appropriate pressure on the municipality to provide adequate treatment within a reasonable length of time.

Mr. Clare also discussed Section 6 of the Executive Order which pertains to review by the Department of the Interior of water resource projects to establish the effects of the resource development on water quality. The FWPCA report on this evaluation must appear as a part of the overall water resource project development proposal.

Reference was also made to Section 7 of the Executive Order which pertains to responsibilities of Federal agencies in reviewing loans, grants and contract practices to determine the extent to which water pollution control standards should be adhered to by borrowers, grantees, or contractors with respect to their operations in the United States. Mr. Clare indicated that a statement should be included, for example, in a timber sale contract to the effect that logging and logging operations should be carried out in such a way that water quality will be protected and water quality standards will not be violated.

Forest Service officials at the conference indicated that their Headquarters Office had advised against placing such a condition in a timber sale contract, but rather to require that the contract include pollution preventive procedures and methods such as leaving filter strips, buffer strips, proper location of roads, etc. It was suggested that if water quality protection conditions need to be included in a timber sale contract, this matter would have to be taken up with officials at the National headquarters level.

Mr. Hill discussed Bureau of Budget Circular A-81's reporting procedures in general. He commented on coordination procedures between the two agencies with respect to both FS "in-house" projects, and those under Sec. 7 of E.O. 11288.

Mr. Ray then reviewed the responsibilities of the FWPCA and the joint responsibilities of the FS and FWPCA as set up in the Memorandum of Agreement between the Chief of the FS and the Commissioner of FWPCA. These points were taken up one at a time, and resulted in the following agreements:

1. FS and FWPCA will cooperate in formalizing the present working arrangements under which water pollution control and abatement operations on National Forest lands will be coordinated within the Region. This outline of procedures, after development at the field level, will be submitted to the Regional Forester and the Regional Director for review and approval.

2. It was agreed that the two offices would work together in identifying areas where cooperative research may be carried out and where administrative procedures involving both agencies may be improved.

3. FS and FWPCA will cooperate in developing an inventory of waste disposal facilities under FS jurisdiction or responsibility in this Region. This activity will be started as soon as possible.

4. The FS has submitted a list of projects needing correction, with cost estimates, in their reports to the Bureau of the Budget, with copies to FWPCA.

5. Septic tanks and drainfields, if properly designed and operating, are normally acceptable as meeting the requirements of Executive Order 11288. As FS pointed out, however, disposal of sludge from septic tank maintenance operations at remote sites is a difficult problem and one which has not been fully solved.

6. There is also a problem with disposal of waste from the vault toilets which have been installed extensively in some National Forest areas.

7. FS and FWPCA staff will develop a mutually accepted plan of work, to include field surveys and responses to FS request for advice and assistance on pollution problems. This plan will be submitted to the Regional Forester and Regional Director for review and approval.

8. FS and FWPCA staff will develop a schedule for submission and review of water resource developments and other projects requiring the review and advice of FWPCA.

9. FS and FWPCA will identify areas where cooperative administrative studies and demonstration areas or research projects can be mutually beneficial, such as spray application of waste treatment plant effluents, or the effects of aerially applied fertilizers. FS stated that they would write the Regional Director, FWPCA, requesting an agreeable date for a meeting to discuss forest fertilization.

10. Bruce Plath, FS, commended FWPCA for the recent Progress Report on Basic Waste Characteristics at Winter Recreation Areas. He further stated that an FWPCA Progress Report on Summer Recreation Areas would be extremely useful to FS.

cy: FAC/Hq.-A. Printz
FWPCA/PNW Reg.-Mr. Agee, Mr. Ray
USFS, PNW Reg.-Mr. Connaughton

7/22/69
H. C. Clare

SUMMARY OF DISCUSSION
U. S. FOREST SERVICE, NORTHERN REGION
and
FEDERAL WATER POLLUTION CONTROL ADMINISTRATION, NORTHWEST and MISSOURI BASIN REGIONS

On July 15, the following FWPCA representatives, Northwest and Missouri Basin Regions, met with the U. S. Forest Service, Northern Region, Regional Office staff in Missoula, Montana:

Hurlon C. Ray, Director, State & Interagency Programs
Herbert C. Clare, Chief, Federal Activities Coordination Branch
Dr. Richard B. Marston, Water Quality Management Specialist
Thomas M. Carter, Federal Activities Coordinator, Missouri Basin Region

The following Regional Office staff from the Northern Region, U. S. Forest Service, were in attendance:

Leland C. Landman, Division of Engineering
Vern Erickson, Division of Operation
Rolf B. Jorgensen, Division of Soils & Watershed Management
Frank Blackmer, Division of Recreation and Lands
Lester Fulton, Division of Timber Management
Howard Foulger, Division of Range and Wildlife

The purpose of the meeting was to undertake an annual review of Forest Service (FS) programs of Loans, Grants and Contracts, and/or Prevention, Control or Abatement of Water Pollution from Existing or Proposed FS Facilities or Activities in relation to Executive Order 11288, and to discuss Federal Water Pollution Control Administration (FWPCA) responsibilities in working with FS in these matters. Provisions for such a discussion are established in the Memorandum of Agreement between the Chief of the Forest Service and the Commissioner of FWPCA, dated July 18, 1967. This Agreement provides for the discussion mentioned above, as well as for identification of areas where co-operative administrative studies and demonstration or research projects can be mutually beneficial.

The discussions were centered around such activities as recreation, logging practices - including road building, sewage disposal, chemicals, sediment, pesticides, mining, forest fires, and other factors having significant effect on water quality. The meeting resulted in plans for developing mutually acceptable procedures for coordinating agency activities and FWPCA responses to FS requests for advice and assistance on pollution problems.

Regional Office organization of the FWPCA was discussed by Mr. Ray. Among other things, Mr. Ray reported there are two laboratories in the Northwest Region of FWPCA. The principal functions of these laboratories are: (1) research on special problems; (2) technical assistance, and (3) training. The two laboratories are: Alaska Water Laboratory at College, Alaska, and in the Columbia River Basin, the Pacific Northwest Water Laboratory at Corvallis, Oregon. Some water quality problems of nationwide interest and concern have been assigned to the latter. These are eutrophication, coastal and estuarine, and thermal effects studies. He commended the FS for its progressiveness and advanced programs and activities in the interest of preservation of water quality and prevention of water pollution.

Mr. Ray also referred to a proposed memorandum of understanding among the Wyoming Department of Public Health, the FS Intermountain Region, and the FWPCA, Pacific Southwest Region, for prevention and control of pollution from activities associated with a timber sale from forest lands located in Southwestern Wyoming and Northern Utah. Such a supplementary memorandum of agreement is authorized in the Memorandum of Agreement between the Chief of FS and the Commissioner of FWPCA, referred to above. Along with the proposed memorandum of understanding, it is also proposed that specific language be included in the Green River Pulp Sale prospectus and contract. In effect, this would require that purchasers of national forest timber not only protect water quality in the logging operation, but also in the processing of the timber.

Mr. Ray also expressed appreciation for cooperation and courtesies extended by the Forest Service to FWPCA.

Mr. Landman identified Forests in the Northern Region which are exclusively on the Missouri Basin Region side of the Continental Divide, as the Gallatin, Custer, Beaverhead, and Lewis and Clark. Those that are exclusively on the western side of the Continental Divide, i.e., in the Northwest Region in Montana, are the Bitterroot, Lolo, Flathead, and Kootenai. In Idaho, they are the Nezperce, Clearwater, St. Joe, Coeur d'Alene, and Kaniksu, and in Washington, the Colville. The Forests in the Northern Region which straddle the Continental Divide are Deer Lodge and Helena.

Mr. Jorgensen discussed the approach of the Forest Service to logging operations in municipal water supply watersheds in Montana. He indicated that road builders and timber contractors are expected to get state permits from the Montana State Health Department if their activities take place in municipal water supply watersheds. Guidelines for compliance with recommendations and standards for protection of water supply watersheds on National forest lands have been developed and are presently in the review status. The FWPCA Regional office is currently making such a review. Mr. Jorgensen further indicated that there are some 40 municipal water supply watersheds in Montana and that the guidelines presently under development will eventually apply regionwide for the Northern Region of the Forest Service.

Mr. Foulger also asked FWPCA to review and comment on a new Chapter in the FS Wildlife Surveys Handbook (FSH 2609.21 R1). This Chapter is presently being reviewed for comments by FWPCA.

Mr. Landman discussed waste disposal problems which are being encountered at the Fire Laboratory Complex near the Missoula Municipal Airport. This Complex is served by two septic tanks and subsurface disposal systems, one of which is on the verge of failure. Mr. Landman indicated that it is hoped that first aid measures can continue these two systems in operation until plans for correction can be firmed up. Recommendations are: 1. Connect to Missoula system. 2. If #1 is not possible, construct new aerated lagoon. A connection can be made to a proposed trunk line which is to be constructed by the City of Missoula leading to the municipality's waste treatment plant. It is hoped that such a project will be completed and a connection can be made within a two-year period. It is estimated that the cost of the connection to the County and FS would be in the order of $150,000 to $175,000. The FS officials indicated they felt that this cost was reasonable.

Mr. Clare pointed out that the preferred method of disposal of waste from a Federal installation such as the Fire Laboratory Complex is through connection with a municipal system, and that if deficiencies exist at the present time in waste treatment at Missoula, that this is of primary concern to the state which will bring pressure on the city for coerection of deficiencies at an appropriate time.

Mr. Jorgensen reviewed work that he had done for FWPCA, Northwest Region, in identifying mining operations in the Region which are actual or potential water pollution problems. He has supplied FWPCA in both regions with maps showing the location of these mining operations. It was his feeling that it would be helpful to the Forest Service if FWPCA could visit typical mining pollution problem areas in Montana or Idaho to discuss possible solutions. He indicated that these problems are caused by effluents from the mines, seepage and sedimentation from tailings dumps, and sediment and stream channel destruction by placer (dredge) mining. A tentative date for a reconnaissance trip to be made by the FS and FWPCA, Northwest Region, has been set for the week of September 29 - October 3, and for Missouri Basin Region, September 9-12.

Forest Service officials indicated that logging camps in the Forests are not a big problem in the Northern Region, that most logging operations are carried on by workers who commute from nearby communities. It was indicated, however, that one camp does exist on the St. Joe National Forest under a special use permit and that the FS can and does control pollution problems at this camp.

Mr. Ray discussed the development of an inventory for waste sources from Federal installations and activities. Mr. Landman inquired about the "cutoff" to be used in preparation of such an inventory and Mr. Clare indicated that at the present time the plan is to include only waste sources which have water-carriage systems or activities which affect surface or underground water quality. Mr. Landman indicated that following such a guide would result in elimination of perhaps half of the FS list of water pollution control projects since many of these are privies and vault toilet installations.

There was some discussion of the use of pesticides in National Forests. One active project in the Northern Region in 1969 is the spraying of Zectran in the Nezperce National Forest for control of spruce bud worm. It was indicated that at least 8000 acres were sprayed in this project. Reference is also made to some experimental work in the Northwest Region in the use of Pyrethrum for control of hemlock looper. There was also a discussion of the present tendency to reduce or discontinue the use of hard pesticides (chlorinated hydrocarbons). The Secretary of Agriculture has recently issued a temporary order restraining the use of nine such chemicals.

Approximately 1 billion, 500 million board feet of timber are harvested per year in the Northern Region. Out of 100,000 acres logged per year, approximately 50 to 60 thousand acres are clear cut. The timber production cycle in the Region averages about 120 years. Each year approximately 800 miles of permanent roads are built in National Forest Reserves and 1400 miles of temporary roads are constructed.

Fertilization came under discussion and officials in the Northern Region indicated that pressures for forest fertilization have not developed in their Region.

In answer to a question about the amount of pressure being applied to accelerate or increase timber production through shortening the timber rotation cycle, it was indicated that this is not yet a serious problem in the Northern Region, FS. However, increasing pressures for conservation of the timber oppose those for accelerating its harvest and a confrontation will probably occur eventually.

It was indicated that erosion problems in the National Forests in the Northern Region result for the most part from construction and use of logging roads and not from logging operations per se.

Mr. Ray asked Mr. Clare to discuss Executive Order 11288 and Water Quality Standards as they relate to Forest Service operations. Mr. Clare indicated that under the Federal Water Pollution Control Act, a standard is made up of both criteria and implementation of these criteria. He pointed out standards are established in Executive Order 11288, in the State-Federal Standards for Interstate Waters, as set up under Water Quality Act of 1965, and in State Standards for Intrastate Waters. The last are established by the States and are not subject to Federal review and approval. He also discussed the Non-degradation Policy which, in itself, is a water quality, actually an effluent, standard.

The standards in Executive Order 11288 apply to all Federal facilities and installations, as well as activities, whether they are located on interstate waters or intrastate waters. The application of State-Federal or State standards is determined also by the location and nature of the Federal facility or activity. This means that if a Federal installation is located on an intrastate stream, it should comply with the State standards for the waters on which it is located as well as standards in Executive Order 11288 and the Non-degradation Policy.

The Non-degradation Policy was established to protect and conserve the quality of clean waters which are so abundant in the Northern Region. The Policy means that any use of water should result in a minimum amount of quality degradation. For the most part, this means, for example, that waste should receive at least secondary treatment or its equivalent. In many instances waste will need to be given tertiary treatment to protect the water quality, or waste must be kept out of the waters entirely.

The Executive Order states that the preferred method of disposal of wastes from a Federal installation is through a municipal system. The purpose of this is to prevent the installation of duplicate waste treatment facilities with consequent increase in cost of operation and maintenance. Even if a municipal installation does not presently have adequate treatment, it should still be used by the Federal agency because the State Water Pollution Control Agency will bring appropriate pressure on the municipality to provide adequate treatment within a reasonable length of time.

Mr. Clare also discussed Section 6 of the Executive Order which pertains to review by the Department of the Interior of water resource projects to establish the effects of the resource development on water quality. The FWPCA report on this evaluation must appear as a part of the overall water resource project development proposal.

There was a discussion of the size of the water resource project which might come under review by FWPCA in evaluating effects on water quality. It was indicated, for instance, that FWPCA certainly does not need to review proposals for development of stock watering ponds. In general, it was indicated that the cutoff should be for review of any project which would result in multiple use, whereas a stock watering pond would be essentially for single use. A reservoir or water resource might be developed for such uses as municipal water supply, irrigation, water quality control, etc.

Reference was also made to Section 7 of the Executive Order which pertains to responsibilities of Federal agencies in reviewing loans, grants, and contract practices to determine the extent to which water pollution control standards should be adhered to by borrowers, grantees, or contractors with respect to their operations in the United States. Mr. Clare indicated that a statement should be included, for example, in a timber sale contract to the effect that logging and logging operations should be carried out in such a way that water quality will be protected and water quality standards will not be violated.

Forest Service reports to the Bureau of the Budget of waste sources needing correction and progress in making corrections as required by the BOB Circular A-81 were discussed briefly. There was some discussion in this connection of coordination procedures between FS and FWPCA with respect to both FS "in house" projects and those under Section 7 of E. O. 11288.

Mr. Ray then reviewed the responsibility of the FWPCA and joint responsibilities of FS and FWPCA as set up in the Memorandum of Agreement between the Chief of the Forest Service and the Commissioner of FWPCA. These points were taken up one at a time and resulted in the following agreements:

1. FS and FWPCA will cooperate in formalizing the present working arrangements under which water pollution control and abatement operations on National Forest lands will be coordinated within the Region. This outline of procedures, after development at the field level, will be submitted to the Regional Forester and the Regional Director for review and approval.

2. It was agreed that the two offices would work together in identifying areas where cooperative research may be carried out and where administrative procedures involving both agencies may be improved.

3. FS and FWPCA will cooperate in developing an inventory of waste disposal facilities under FS jurisdiction or responsibility in this Region. This activity will be started as soon as possible.

4. The FS has submitted a list of projects needing correction, with cost estimates, in their reports to the Bureau of the Budget, with copies to FWPCA.

5. Septic tanks and drainfields, if properly designed and operating, are normally acceptable as meeting the requirements of Executive Order 11288. However, disposal of sludge from septic tank maintenance operations at remote sites is a difficult problem and one which has not been fully solved.

6. There is also a problem with disposal of waste from the vault toilets which have been installed extensively in some National Forest areas.

7. FS and FWPCA staff will develop a mutually accepted plan of work, to include field surveys and responses to FS request for advice and assistance on pollution problems. This plan will be submitted to the Regional Forester and Regional Director for review and approval.

8. FS and FWPCA staff will develop a schedule for submission and review of water resource developments and other projects requiring the review and advice of FWPCA.

9. FS and FWPCA will explore areas where cooperative administrative studies, demonstration areas, or research projects, such as the effects of prescribed burning on water quality, can be mutually beneficial.

10. The FWPCA Regional Offices and Laboratories can assist the FS in preparing a list of laboratories qualified to analyze and evaluate the chemical characteristics of water and waste effluent samples. They can also consult with and develop recommendations needed to prevent or abate water pollution or the eutrophication of impoundments used for recreation.

cy: FWPCA, Missouri Basin Reg, - T. Carter

H.C.Clare/R.B.Marston
ee: 9/11/69

SUMMARY OF DISCUSSION, USFS, ALASKA REGION
and
FWPCA, NORTHWEST REGION

On April 2 the following FWPCA representatives met with the USFS Region Office staff in Juneau, Alaska:

Richard W. Latimer, Director, Alaska Water Laboratory
Merritt A. Mitchell, Chief of Operations, AWL
Hurlon C. Ray, Director, State & Interagency Programs, Regional Office
Herbert C. Clare, Chief, Federal Activities Coordination, NW Region

Besides Mr. W. Howard Johnson, Regional Forester, Alaska Region, U. S. Forest Service, other personnel on his staff who attended the meeting were:

George F. Roskie, Asst Regional Forester, USFS
Jim Watson, Branch Chief, Sales Preparation, Division of Timber Management, USFS
Grant Williams, Chief, Branch of Watershed Management, Division of Recreation, Lands, Watershed & Wildlife Management, USFS
Richard W. Wilke, Regional Engineer, USFS

The purpose of the meeting was to undertake an annual review of Forest Service (FS) programs of loans, grants, and contracts, and/or prevention, control, or abatement of water pollution from existing or proposed FS facilities or activities and to discuss FWPCA responsibilities in working with FS in these matters. Provisions for such a discussion are established in the memorandum of agreement between the Chief of the Forest Service and the Commissioner of FWPCA which provides for the discussion mentioned above as well as identification of areas where cooperative administrative studies and demonstration or research projects can be mutually beneficial. The discussions were centered around activities such as logging practices, sewage disposal, chemicals, sediment, pesticides, and other factors having a significant effect on water quality. The meeting resulted in development of a mutually acceptable outline of a work plan to include field surveys and to respond to Forest Service requests for advice and assistance on complex pollution problems and for discussing a schedule for such work.

Regional Office organizations as well as staffing patterns were discussed by Mr. Latimer for FWPCA and by Mr. Johnson for the FS. Mr. Johnson indicated that in the National Forests in the Alaska Region there are approximately 285 personnel on the regular staff and some 400 total staff during summer operations.

Mr. Clare discussed Executive Order 11288, its purpose and provisions for Federal leadership and effectiveness in water pollution control through waste treatment, compliance with established standards, and other means. He discussed

Federal facilities, Federal installations, and Federal activities. Particular emphasis was given to the Standards in the Executive Order and the existence of additional standards in Alaska; namely, State standards applying to intrastate waters and State-Federal standards applying to interstate waters. Thus the FS is aware of three sets of standards that must be considered in planning waste treatment and pollution control activities within the Alaska Region.

The FS representatives discussed the "barometer watershed" project which has been published in the North Tongass National Forest, Kadashan Drainage. The purpose of this project is to establish conditions in the basin including basic water quality for the purpose of evaluating changes which may take place during and after logging of the area which may start (TM) in 1971 or 1972.

Within the watershed are five gaging stations established by FS representatives and serviced by the U.S. Geological Survey (USGS) under an interagency agreement. The USGS is making determinations of temperature and sediment, as well as chemical criteria such as pH, dissolved oxygen, total dissolved solids, silica, sodium, nitrate, potassium, etc. The FS plan for the "barometer watershed" has been discussed with Dr. Fred Lotspeich of the Alaska Water Laboratory. Dr. Lotspeich also participates to some extent on continuing project activities and may assist in interpretation of certain data.

Mr. Ed Johnson of the FS will be in the Alaska Region in June and it was suggested that at that time someone from FWPCA might attend a meeting with Mr. Johnson, probably in Juneau for the purpose of discussing water quality monitoring which is being set up by the FS. The Regional Forester also pointed out that the FS has a research unit in Juneau and that information on research projects and improvements resulting from research findings are made available for operations.

The FS has a program of classifying soils as well as streams so that management of forests can be adjusted to this information and can be effectively modified as a result of such classifications.

Some peculiarities of the forests in the Alaska Region were pointed out. One of these is the nature of runoff which is practically 100% because the soils are practically saturated continuously.

It was also pointed out that timber sales in the Alaska Region are different from those in Oregon and Washington, because it is necessary to sell timber in large lots under contract for longer periods of time in order that wood processing plants, e.g., pulp mills, can be constructed and amortized under a definite arrangement for availability of timber. It was pointed out, however, that modifications of existing contracts to conform to provisions in new contracts can be negotiated, that such negotiations in the past have been satisfactory and it is anticipated that they will be in the future.

Downhill logging is practiced practically exclusively. Consequently, logging and log hauling roads are in the bottoms. This is necessary because it is not possible to get the roads "on top". Buffer strips are not left as common practice in this Region because they have been found to be more susceptible to blow down due to high winds on shallow rooted tree species.

Apparently water temperature is not generally a problem in the Alaska Region. Also, it was pointed out that there is little erosion and sediment from areas following logging operations, nor is slash burned as it is in the Northwest States. Although logging debris is kept out to the extent possible from fish spawning streams, slash is left on the ground since fire hazards are minimal. It also prevents the development of undesirable underbrush which would prohibit or slow down natural reseeding and also helps in controlling erosion and reduces sediment. Slash and debris decompose rapidly because of the abundance of moisture.

It has been found in this Region that natural reseeding is rapid and adequate.

It is expected that in the near future fertilization of forest areas, particularly those that have been cut over, will be practiced extensively, thus reducing the time required for developing mature second growth stands.

The FS in this Region realizes the importance of the fisheries industry. Spawning beds have a high value and a high priority since fisheries is one of the most important industries in Alaska. The FS has developed a machine which can travel on land or in water for short distances. It is used to clean spawning gravel beds and bars. It is known as a "riffle sifter". This device is described in the publication "Science for Better Living, the Year Book of Agriculture, 1968, U.S. Department of Agriculture" (pp 204-208).

The FWPCA representatives discussed the need for an inventory of Federal facilities and the procedure which may be followed in establishing such an inventory. It was agreed that a representative of the FWPCA would visit the Juneau office of FS for the purpose of preparing the detailed inventory from available records in the FS office. It was also agreed that the FS, in the future, will supply information which can be used to keep this inventory up to date.

For some time there has been discussion of constructing a third pulp mill in Alaska. At the present time, one is located at Sitka and another at Ketchikan. Two locations are under consideration for the third mill. One is at Katlian River Basin north of Sitka, the other is at Echo Cove north of Juneau in the Berner's Bay area. The mill will be a sulfate pulp mill (unbleached) and it is anticipated that liquid wastes from the plant will be relatively easy to control from a pollution standpoint. However, it is expected that air pollution will be a problem as it is with draft mills in general.

Extensive fields of high quality coal are located on FS lands in what is known as Cortella coal fields east of Cordova. Actually they are east of the estuary of the Copper River east of Cordova. It is expected that development of these fields for production of coal which may be shipped to Japan for coking may result in open pit mining operations. Since sulphur content is reported to be appreciable, this would result in acid drainage unless proper planning methods and precautions are taken. It is our understanding that Bureau of Land Management (BLM) would negotiate the lease or permit for development of the fields. It is understood that Mr. Ed Johnson of USFS has had considerable experience with acid mine drainage problems. It was suggested that this matter be discussed with FWPCA technicians who have had experience in acid mine drainage control in the Appalachia Region under present FWPCA programs. It is hoped that plans can be developed for mining the coal which will result in prevention of damage from acid mine drainage instead of letting a problem develop which will necessitate development of a corrective program later, as has happened in the Appalachia coal mining areas.

There was considerable detailed discussion of FS responsibilities under the agreement as well as FWPCA responsibilities and joint FS-FWPCA responsibilities. It was agreed that a problem may develop for the FS in this Region from the standpoint of water quality, with construction and operation of a pulp mill which is proposed for the North Tongass Forest area. FWPCA will be expected to work closely with the FS in developing plans for control of pollution from this operation.

The FS wants assistance in the preparation and maintenance as well as evaluation of sampling programs to determine characteristics of water in the forest as well as waste effluents.

A power plant has been proposed for installation on FS land at Crescent Lake near Seward. This plant would be used for development of power by a private power company for use of the Seward area. This was studied some twelve years ago by the U.S. Bureau of Reclamation and some information on the nature of water yield may be available from that study.

There was a discussion of need for additional monitoring of wastes, particularly pulp mill wastes, at present and future sites. It was agreed that these monitoring programs would be discussed with the FS by someone from FWPCA and that all assistance possible would be rendered. It was pointed out, however, that personnel and budget for such operations in Alaska are very limited on the part of both agencies.

A discussion of the engineering aspects of waste disposal and sewage treatment brought out the following:

1. FWPCA has engineering design review and advisory capability. FS can utilize this capability as needed on difficult projects.

2. Inventory of FS facilities has been furnished FWPCA through W.O. of FS. This inventory will be jointly reviewed and updated.

3. FS has submitted list of projects needing correction with cost estimate. It is mutually agreed that when funding is made available these problems will be essentially solved.

4. A septic tank and drainfield if properly working is normally acceptable as meeting the requirements of Executive Order 11288.

5. State of Alaska requires only primary treatment on intrastate waters. On interstate waters, secondary treatment is required unless it can be shown that lessor degree of treatment will not be damaging. It is states responsibility to enforce sewage treatment requirements for communities. Short term logging camps (2 or 3 years) in most locations don't cause enough damage to justify construction of a treatment facility.

6. Regarding non-degradation requirements, it was generally agreed that in critical cases, providing the best known treatment would satisfy the requirements.

cc: FWPCA/PNW Reg. Mr. Agee, Mr. Ray
USFS/Alaska Reg. Mr. Johnson
FWPCA/Alaska Water Lab. Mr. Latimer, Mr. Brust
FAC/HQ, Mr. A. Printz
USFS/Northern Region by FAC 5/26/69.

H. C. Clare
4-30-69

SUMMARY OF DISCUSSION
U.S. CORPS OF ENGINEERS, ALASKA DISTRICT
and
FWPCA, NORTHWEST REGION

On November 17, 1969, Hurlon C. Ray, Director, State and Interagency Programs, and Herbert C. Clare, Federal Activities Coordinator, Federal Water Pollution Control Administration (FWPCA), Northwest Region, met with the Corps of Engineers (CofE), Alaska District, in the office of the Corps, at Elmendorf Air Force Base, Anchorage, Alaska.

The purpose of the meeting was to undertake an annual review of programs for prevention, control, and abatement of water pollution from existing or proposed CofE's installations, facilities, or activities in relation to Executive Order 11288, and to discuss FWPCA responsibilities in working with CofE in these matters. Provisions for such a discussion are established in the Memorandum of Agreement between the Department of the Interior and the Department of Defense, dated September 13, 1968. The purpose of this Agreement is to clarify certain sections and procedures established in the "Guidelines for the Prevention, Control, and Abatement of Water Pollution by Federal Activities" dated July 1967 and issued by the FWPCA.

Colonel Hardin indicated that he thought the meeting could be very helpful to his staff in clarification of responsibilities of FWPCA in his District and the relation of these responsibilities to operations within the Alaska District.

The following staff personnel from the CofE District were in attendance:

Colonel E. L. Hardin, Jr., District Engineer
Aurora L. Loss, Chief, Permit Section
M. D. Wade, Jr., Flood Plain Management Services
Troy M. Willard, Hydraulic Engineer, P & R Branch
H. S. Farney, Chief, Planning & Reports Branch
Ed Pohl, Chief, Sanitary Engineering Section
Warren George, Chief, Engineering Division

The District Engineer, Alaska District, has designated the following as contacts for coordination of FWPCA - CofE activities in the Alaska District:

Edward Pohl, Military-Sanitary Design
Walter W. Duncan, Water Resources Planning

It is the practice of FWPCA to communicate with the Alaska District Engineer and let him direct the communication to the appropriate CofE Coordinator. However, informal or field level contacts may be made directly with and between the coordinators.

The following items were on the agenda for this program review meeting:

1. A discussion of Executive Order 11288--its interpretation and implementation.
2. Water quality standards.
3. Memoranda of Agreement and Understanding between our Departments.
4. Section 807 of the Military Construction Authorization Act.
5. Flood Plain Management Services under Executive Order 11296.
6. Coordination of activities by our two agencies which can best bring about objectives for prevention, control, and abatement of water pollution.

Mr. Ray reviewed some of the recent developments in water pollution control administration, especially recent legislation and its effect on our mutual programs, and proposed legislation which could have considerable effect on these operations. He also reviewed the Regional Organization of FWPCA, and included references to the two Laboratories within the Region--one at Corvallis, Oregon, and the other at Fairbanks, Alaska. He indicated that the basic functions of these Laboratories are threefold:

1. Research in connection with problems peculiar to the Region and problems for which national responsibilities have been assigned. For example, at Corvallis, the Laboratory handles the Nationwide problems of research and study of eutrophication as well as thermal pollution. The Laboratory at Fairbanks handles problems for cold climate.

2. A second responsibility of the Laboratories has to do with investigations, experiments, field demonstrations, and studies within the Region, and

3. Training programs relating to the prevention and control of water pollution.

Mr. Ray indicated that the principal contact with the CofE at the Alaska District level will be with the FWPCA Operations Office located in Anchorage, Alaska.

Mr. Clare reviewed provisions of Executive Order 11288 and referred to the Guidelines which have been set up for the prevention, control, and abatement of water pollution by Federal Activities, as required under the Executive Order. There was some detailed discussion of Sections 2 and 3 of the Executive Order pertaining to waste treatment for new Federal facilities and buildings, respectively. Under these Sections, responsibility for design, construction, and operation of new pollution control works or improvements in existing works rests with the CofE. However, the Executive Order indicates that the FWPCA should review these proposed designs and advise the Corps as to effectiveness and adequacy of proposed treatment and improvements. In this connection, compliance with state and local criteria is considered by the FWPCA.

These reviews and advice by FWPCA are based on examination of plans and specifications or study of essential features which are provided by the CofE. Reviews of such plans and specifications or essential features, and consolidated comments are returned to the CofE reflecting the review comments by the state water pollution control agency. It is in the interests of best coordination to see that all standards and criteria are met. FWPCA should be the primary coordinating agency for matters pertaining to waste treatment facilities and should serve as coordinating liaison between CofE and the state.

Mr. Clare also referred to Section 6 of the Executive Order which provides for review by the Department of the Interior of a plan proposing authorization or construction of Federal water resource development projects. The review report is to be included with, or attached to, the project report.

Section 7 of the Executive Order states that the heads of departments, agencies, and establishments should prescribe regulations and conditions or stipulations concerning conservation or enhancement of water quality in connection with issuance of permits or in executing contracts or in providing for loans or grants.

Section 8 of the Executive Order pertains to wastes from watercraft, FWPCA has prepared a report evaluating this problem and has recommended the development of standards and a program for improving waste treatment in connection with watercraft operation. The CofE was especially interested in this problem since it is involved to some extent in the development of plans for marinas and other recreational facilities on navigable waters. It was the suggestion of FWPCA that such plans include at least space for waste storage and handling facilities. In this connection, there was a question of the availability of grant funds from FWPCA for treatment of wastes from a marina which serves boats. It was pointed out that the marina itself probably would provide for collection and storage of wastes and not for treatment. If a municipal operation provides for treatment of wastes from a marina complex the cost of such treatment could probably be included in the overall cost of waste treatment for the municipality, and, therefore, be eligible for a "construction grant."

Mr. Clare developed the subject of standards in some detail. It was pointed out that besides State-Federal standards on interstate waters there are also state standards on intrastate waters in Alaska. In addition, there are standards in Executive Order 11288, and the Department of the Interior's Anti-degradation standard is in effect an effluent standard. All of these standards should be followed by Federal agencies when waste discharges are generated or where activities have an impact on water quality.

Under the Federal Water Pollution Control Act, a standard is made up of both criteria and an implementation plan for these criteria. State-Federal standards on interstate waters are subject to review and approval by the Secretary of the Department of the Interior, but state standards on intrastate waters are not subject to such review and approval. Interstate waters in Alaska are extensive since they include not only streams that cross the international boundary, but also all coastal waters which include estuarine waters to the head of tidal influence.

Standards in the Executive Order require, among other things, secondary treatment for wastes discharged from Federal facilities and installations. More and more frequently the figure "85% removal" is appearing in discussions of secondary treatment. The District (CofE) asked about the need for this degree of treatment in Alaska where small isolated installations are located adjacent to extremely large bodies of receiving water. It was further pointed out that the standards in the Executive Order state that the preferred method of waste disposal from Federal installations is through a municipal system and treatment facilities. This would be applicable in connection with wastes from Elmendorf Air Force Base and Fort Richardson at Anchorage. It was indicated that firm agreements for such waste disposal are presently in effect.

The Anti-degradation standard was established to protect and conserve the quality of clean waters which are so abundant in Alaska. The standard means that any activity or use of water or generation of a waste should result in a minimum degree of quality degradation. For the most part, this means, for example, that wastes should receive at least secondary treatment, or its equivalent. Mr. Clare indicated that in his opinion Federal agencies should comply with the highest of the four standards referred to above.

Mr. Wade gave a very helpful discussion on the significance and applications of Executive Order 11296 pertaining to "Evaluation of Flood Hazard in Locating Federally-owned or Financed Buildings, Roads, and Other Facilities and Disposing of Federal Lands and Properties." He indicated that in order to fully comply with Executive Order 11296 extensive efforts toward data accumulation and flood hazard evaluation must be combined with interagency cooperation at all levels of government. He indicated that flood damage in Alaska can be prevented or drastically reduced by a realistic approach to wise use of available land and flood-proofing, where necessary. The CofE, under its Flood Plain Management Services Unit, is able to provide technical assistance and flood-hazard evaluation anywhere in Alaska. Every effort is made to respond without delay so that planning for any project can proceed with complete awareness of flood hazard potential. The CofE is in a position to recommend appropriate flood-proofing measures, and works with the Flood Insurance Administration in helping establish rates for flood insurance.

This work is done by the Corps under the provisions of Executive Order 11296 without reimbursement of cost by the agency requesting advice in these matters. For individuals or industries the CofE supplies copies of available data and information. For governmental agencies it supplies not only data but an interpretation of their application in specific instances.

Colonel Hardin discussed the serious problem of proper disposal of wastes from canneries in Alaska. He indicated that the quantities of wastes are large with high organic matter content during the cannery-operation season. Mr. Ray indicated that FWPCA has received and is presently evaluating an application for a Research and Development Demonstration Project entitled "Pollution Abatement and By-Product Recovery in Shellfish Processing at Kodiak, Alaska." The objective of the proposal as written, is to develop design criteria for a full-scale treatment plant which would handle processing wastes from 15 plants in the Kodiak harbor area. The proposed project would be carried out in two phases over a three-year period. Phase II, construction and demonstration of the full-scale plant, would depend on favorable Phase I pilot and engineering studies. Estimated cost of the project is $1.73 million and the grant amount requested is the legal maximum of $1 million. The City of Kodiak anticipates a return of $300,000 from the by-products produced to help defray total project costs. The seriousness of pollution of the interstate waters of Alaska from fish processing and cannery wastes is recognized by the FWPCA. The State of Alaska has asked that fish cannery wastes be exempt from compliance with water quality standards.

Colonel Hardin was interested in a discussion of enforcement procedures in connection with water quality standards and responsibilities for securing compliance with these standards on the part of the Federal agency generating and treating wastes as well as FWPCA and the State of Alaska. Mr. Clare pointed out that enforcement procedures, under the Federal Act, were really set up for use in the contiguous states where interstate pollution is less difficult to demonstrate than it would be in Alaska. The steps followed in an enforcement action are (1) a conference among the interested agencies, establishing the seriousness of the pollution problem, what should be done about it and when; (2) a hearing which covers the same general outline as the conference but is more formal and has a higher legal standing; and (3) reference to a Federal court. In only one case in the United States has an enforcement action been taken as far as the court and, in this case, a decision is still pending or has not been reached. A court order has been issued, however, requiring progress in abating pollution.

Mr. Clare indicated he felt that monitoring of effluents is logically a responsibility of the agency generating, treating, and discharging the waste, while monitoring streams should be a responsibility of the State and/or the FWPCA. The FWPCA could logically be expected to have more responsibility for monitoring interstate waters while the State would have primary responsibility for monitoring intrastate waters.

The two agreements between the agencies were discussed in some detail. These are:

1. A Memorandum of Agreement between the Department of the Interior and the Department of Defense, dated September 13, 1968;

2. A Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army dated July 13, 1967.

It was suggested that the CofE would supply the FWPCA with plans and specifications or descriptions of essential features of new proposed waste treatment facilities and/or changes in existing facilities. FWPCA will coordinate the review of these plans or features with the appropriate state water pollution control agency and consolidate state comments along with those that FWPCA might have. It was suggested that this might be a better procedure than for the Corps to go to the state agency directly or separately from FWPCA. This would mean that the FWPCA will serve as coordinator for review and comment on the proposed waste treatment project or on changes in existing projects. It was further indicated that these reviews should be made at the earliest possible stage of planning to prevent undue delay and expense which may be advisable. Mr. Ray indicated that Mr. Brust, from the Alaska Operations Office at Anchorage, would be available at the convenience of the CofE for discussions in connection with planning waste disposal facilities.

Mr. George indicated that he was concerned about the possibility of "closing the door on direct communications between the CofE and the state" if FWPCA serves as coordinator on new or existing projects. Mr. Clare indicated that the door should not be closed--that the CofE should make direct contact with state and other agencies on such matters as those covered by Sections 6,7, and 9 of Executive Order 11288 but that he felt in the interests of smoothest coordination, a single coordinator could prevent confusion and duplication in matters covered by Section 2 and 3 of the Order.

There was a brief discussion of reports which should be made to the Bureau of the Budget in accordance with Executive Order 11288 for existing installations that need improvement or enlargement. Implementing this requirement in the Executive Order is Bureau of the Budget Circular A-81 which provides that reports shall be made in three formats: Format A is a listing of existing projects which need to be improved or enlarged--Format B indicates the cost of such improvements and plans for budgeting for the necessary changes over a period of time--Format C indicates progress which has been made during the past year in making necessary improvements to existing installations.

Mr. Ray expressed appreciation for the opportunity to conduct this program review with Colonel Hardin and his staff. He felt that it had been very helpful to FWPCA and hoped that such a review might be held on an annual basis.

Attachments:

1. Executive Order 11288
2. Guidelines for Prevention, Control, and Abatement of Water pollution by Federal Activities
3. Memorandum of Agreement between the Department of the Interior and the Department of Defense
4. Memorandum of Understanding between the Secretary of the Interior and the Secretary of the Army
5. Anti-degradation Standard

H.C.Clare/1/19/70